

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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SECTION III.

In order to effect a saving in labour, and to be enabled also to use non-flaming fuel, Hugon has devised a special apparatus for fire setting. This consists of a box somewhat similar in shape to a modern parlour coal-scuttle, without any lid at the front end next

The fuel employed in fire-setting is chiefly wood, best that which burns with considerable flame. The use of non-flaming fuel, such as coke and brown coal, can only be effective when the fire is kept up and promoted by mechanical means, and this applies to a great extent to the use of ordinary coal.

MANUFACTURE OF STEEL.—Mr. STEPHEN BARKER, of Knoxville, Tennessee, proposes to combine various kinds of cold blast charcoal pig, and work them in a common puddling-furnace. To use the furnace he prefers to use bituminous lump coal. After the iron is melted, or while it is melting, he introduces 3 lbs. of pulverised magnetic iron ore, and mixes this with the melted iron; after this is well worked through the iron and the iron begins to boil, he adds the following chemicals with the damper down on the tack close enough to carry off the waste smoke—black oxide of manganese, about $1\frac{1}{2}$ lb.; carbonate of soda, $\frac{1}{2}$ lb.; pulverised oyster shells, 3 lbs.; common salt, 4 lbs.; soda ash, $\frac{1}{2}$ lb. He does not boil the iron at such a high temperature as is required for making puddle-iron for wrought-iron purposes, but keeps it at a proper heat so as to obtain the full effect of the chemicals. When the iron has been worked thoroughly and made into puddle balls it is drawn and hammered into blooms. It is then reheated in a common heating furnace, and hammered into flat bars. He cuts these bars up into small pieces, then puts these small pieces of iron into a common crucible with about $\frac{1}{2}$ lb. of black oxide of manganese, 1 lb. of common salt, $\frac{1}{2}$ lb. powdered oyster shell; these chemicals are introduced into the crucible when putting iron in for smelting. By

The new compressor only requires from 30 to 40 lbs. of steam work it with, and at that pressure sufficient air will be compressed work four rock drills, each requiring about 40 lbs. of air. The machines require no masonry or other fixing, and can be set to work a few minutes after being lodged on the ground close to the boiler from which it is to receive steam. It is also very compact and portable, the No. 3 sizes weighing about 2 tons. The advantage of it will be apparent in those cases where the mines are situated in localities where the steepness of the approach or bad state of the roads render the transport of the machinery difficult and costly. When necessary the compressor could be taken to pieces, so that the largest would not exceed 10 or 15 cwts., which could certainly be carried wherever there are facilities for bringing away a cartload of mineral. It is understood that one of the Hathorn compressors on its way to the Roman Gravel Mine, where it will be at once put to work to drive several of the Ingersoll drills, the highly satisfactory working of which has frequently been noticed in the *Mining Journal*. The particular form of drill has, of course, nothing to do with the success of the compressor, and there can be no doubt that in the few cases where rock drills have not answered expectations the disappointment has resulted more from the difficulty in obtaining a cheap supply of compressed air of suitable pressure than from any defect in the drill itself. The compressor will be illustrated and more fully described in a future Journal.

I have now to call your attention to another law, that of isohedral development. This simply means the development of one-half the planes and the suppression of others. Suppose an octahedral crystal of alum placed in a saturated solution of alum it would gradually get bigger, from new particles attaching themselves to each plane. But suppose further that from some cause or other only each alternate plane received this increase, we should after

* Being Notes on a Course of Lectures on Mining, delivered by Herr Bergrath, Dr. von GROEDACK, Director of the Royal Bergakademie, Clausthal, The Harz, North Germany.

Nov. 3. 1877.]

get this result, and at last this (showing models), which is a tetrahedron, or four-sided figure. You will observe that it is bounded by four equal equilateral triangles, and I may tell you that these are always inclined 80° to each other. Now the planes of the tetrahedron, like those of the octahedron, meet or cut each other at equal distances from the centre, so that its symbol should be 1.1.1.1. I must carry you one step further before leaving this subject.

subject of crystal form, and that is to the combinations of form. The lecturer here gave illustrations of combinations of form, showing the cube octahedron and cube rhombic dodecahedron. Perhaps you will say all this is extremely simple, but the natural crystals I have seen are very complex indeed. This is very true, but I assure you they are all derived from systems of imaginary axes according to the laws I have indicated. [Here the lecturer illustrated the six systems of axes.] We will now pass from crystal form to crystal composition. An immense number of substances known to the chemist, like glycerine and oil, seem to have no tendency whatever to crystallise under any circumstances. Others, like sugar or alum, are very ready to crystallise if you only give them the opportunity. The first are called colloids, the second crystalloids. It is with these that we have to do this evening.—Mr. Collins, in conclusion, explained and illustrated the formation and character of many crystals.

COLUMBIA AND CANADA.

The connection, social and commercial, between the English-speaking people of the Old World and the New is so intimate that it is not many years since that we have noticed an interesting little volume entitled "Westward by Rail," by Mr. W. FRASER RAE, and the same gentleman has now given us an equally interesting narrative of travel* by way of supplement, which will prove equally acceptable to readers of all classes of literature, whilst from the large amount of facts which are embodied in the narrative the book will, we have no doubt, be widely read by those desirous of obtaining accurate and interesting information connected with the history of several of the useful inventions of the last century, not the least attractive of which is his reference to the infancy of steam navigation. Mr. Rae remarks that two citizens of the United States—James Rumsey and John Fitch—were amongst the earliest experimenters in steam navigation. Rumsey designed a steamboat which was to cross the Atlantic in 15 days, but died with his dream unfulfilled. Fitch was also a victim of great disappointment. In 1786 he propelled a steam power against the current of the Potomac at the rate of five miles per hour, and one of his steamers plied for a time on the Delaware in 1788. An engine moved a series of paddles through the water like canoe paddles, worked by hand, and a speed of seven miles per hour was attained. Fitch, however, failed to obtain the support of capitalists, whilst "sensible" men remarked—"Poor fellow, what a pity; he is crazy!" An indisputable proof of insanity being that when requesting a loan of 500,000, wherewith to complete his second steamboat, he declared in writing—"This, whether I bring it to perfection or not will in time be the mode of crossing the Atlantic for packets and armed vessels." He committed suicide in 1798. It seems that 45 years after Dr. Lardner, if we might judge by the light of our present knowledge, more than Fitch; for he stated in a public lecture, after admitting the possibility of a steamship making a trip from Valentia in Ireland to St. John's in Newfoundland, he added—"As to the project, which was announced in the newspapers of making the voyage directly from New York to Liverpool, it was, he had no hesitation in saying, perfectly chimerical; and they might as well talk of making a voyage from New York or Liverpool to the moon." It is now unquestionable that Mr. Symington perfected the earliest engine which transformed the steamboat from a theory into a reality; his model has been followed by all succeeding designers of marine engines. With Symington's engine a paddle-boat on Dalswatter Loch made five miles an hour, and in 1802 the Duke of Edinburgh ordered eight boats of him, but the Duke dying soon after, his successor rescinded the order, and Symington died a pauper. In 1798 Robert Fulton, a native of Pennsylvania, succeeded in moving a boat through the water by steam with a screw propeller, and for a time he was successful, but he died in 1815—a neglected, heartbroken, and ruined man. After a beginning in steam navigation had been made the progress was rapid. In 1815 a steamship appeared on the Thames, and in 1819 the first steamboat (the *Samuel*) crossed the Atlantic. Altogether Mr. Rae gives a readable account of the early history of steam navigation, and his description of the voyage is also good. Referring to New York, he complains of the Customs practice of requiring a legally affirmed declaration that the list of the contents of his luggage is correct, and then deputed an officer to search the luggage for smuggled goods, but all travellers well know that customs officers are very eager in detecting suspicious-looking characters, and that similar complaints to his are heard with regard to the customs officers in all European countries, although three-fourths of the travellers find them obliging and polite. At New York, as elsewhere, the officers are declared by impartial observers to treat travellers precisely as the travellers treat them; an agreeable man, who can refrain from the silly habit of joking with strangers, and especially when he is acquainted with the general disposition and notions of those whom he is addressing, seldom finds cause to complain. On the other principle, many might complain of the literary style of Mr. Rae's volume, but the majority, who will read it for information and amusement, and not for the purpose of criticism, will be quite satisfied with it. He appears to rejoice at the downfall of Tweed and his colleagues, but he asserts that the purer administration at times the cost had made "no notable improvement in the paving and so on; altogether, his opinion of New York is not remarkably favourable.

Philadelphia, Mr. Rae remarks, covers nearly 130 square miles, being 22 miles long from north to south, and from five to eight miles in breadth. There are upwards of 350 miles of paved streets within this area, those running east and west bearing the names of cherry, chestnut, walnut, spruce, and others, whilst those running at right angles bear numbers, so that the finding of a given street is very easy. The laws by which Pennsylvania is governed are notable for an antiquity almost exceptional throughout the American continent. Laws made in 1704 are still in force, and he declares that this proves that the colonial legislators under the monarchy have been quite as capable as their successors under the Republic, and may be said to give fresh point to the well-known adage in which Pope puts good administration as the criterion of the best form of government. The Centennial Exhibition; Philadelphia during the exhibition; the Press and the people of Philadelphia; the District of Columbia; the Capital of the Union; the Capital of the Commonwealth of Massachusetts, Saratoga, and West Point; and the Saratoga Springs, each form the subject of a separate chapter, and some of his observations are especially worth noting. It appears that when the first number of the Philadelphia Public Ledger was issued Mr. Russell Jarvis, the editor, in an address to the public, gave Great Britain the credit of having an engine of invention in a Cheap Press, which other countries might envy. Thus Mr. Rae remarks that unless he meant by this such publications as the Penny Magazine it is difficult to understand what he could have referred to. As to the reason why the District of Columbia has no State rights, and sends neither senators nor representatives to Congress, Mr. Rae has evidently made no enquiries; therefore, is incompetent to discuss any question in which the District of Columbia is concerned, the natural result being that his chapter under that title gives indisputable evidence of glaring misapprehension.

The remaining chapters of the book are devoted to accounts of a voyage through Canada, and of the homeward voyage, and contain a

considerable amount of instructive and entertaining information with regard to the Province of Ontario, travellers and bankers in North America, and the city of Toronto. In the concluding chapter Mr. Rae offers a rather curious suggestion. He remarks that a great scheme of confederation between Great Britain and the United States has been proposed, but no agreement as to its terms has yet been arrived at. He suggests that better than any treaty, far simpler than such a scheme, and a prelude to the adoption of one hereafter, would be an Act of Parliament of the United Kingdom and an amendment of the Constitution of the United States giving to citizens of the Republic and subjects of Queen Victoria common citizenship in the Anglo-American empire. The volume is certain to meet a good reception from all classes, and will add to the reputation which the author's former works have gained for him, as it is at once amusing and instructive.

FOREIGN MINING AND METALLURGY.

There is nothing very novel or interesting to report with respect to the French iron trade. The general situation remains much the same, and it is feared that political uncertainties will prevent any improvement taking place for some time to come. Prices show scarcely any variation. The French Customs Returns for the first nine months of 1877 do not exhibit very favourable results as far as the French iron trade is concerned. Thus, as compared with the corresponding period of 1876, the imports of pig exhibit an increase of 17,000 tons, this increase arising almost entirely under the head of imports with payment of duties. As regard iron and plates, the imports exhibit only a slight augmentation, upon the whole; but it may be noted that 4000 tons less iron were imported free of duty, and that 5000 tons more iron were imported with payment of duty. This comparison shows tolerably clearly the decline which has taken place in the exportation from France; upon the whole, this decline appears to have been 27,000 tons upon a total of 166,000 tons. Negotiations with reference to the renewal of treaties of commerce are stated to be meeting with considerable difficulties. The present crisis has communicated a new vigour to Protectionist ideas; everyone feels himself weak, and looks in consequence to tariffs for assistance.

Although the weather has not at present become very cold in Belgium, preparations for the winter continue to be made. There is a good current of orders for coal for domestic purposes, and this state of things, if it has not revived prices, has at any rate given a certain firmness to the market. Deliveries have been made upon a large scale to Paris, which has been looking for supplies of coal from Belgium in quite a serious fashion. Coal for industrial purposes, although metallurgical industry has moved on rather sluggishly, has also been in somewhat better demand; this is due to the fact that some orders have been given out last frosts should check deliveries on the navigations. This temporary activity may perhaps become more decided for a few days, but there cannot be said to be any definitive improvement in affairs.

The weather has been rainy and unsettled in France, but there have not been any very rough variations of temperature. As the present political situation is full of uncertainties large orders have been rather scarce. In domestic coal there has, on the contrary, been a very satisfactory activity, and both consumption and the quality of the deliveries have exhibited a sensible progress. Prices have remained the same, but they have rapidly hardened, and an advance in domestic qualities is regarded as probable. Industrial qualities have been rather neglected, although there have been some good surprises as regards the sugarworks, the beet root crop having proved a better one than was once anticipated. This has led to the receipt in the Nord and the Pas-de-Calais of a certain number of supplementary orders, which have been very welcome. A great exhibition of coal has just been opened at Hamburg. The exhibition afforded an illustration of the mineral wealth of Westphalia, and it appears to be considered that the workable beds now known to exist in that part of Europe will be sufficient to provide for the consumption of Germany for more than 5000 years. The death is announced of M. Victor Dubochet, President of the Parisian Gas Company. M. Dubochet, who may be said to have created the company, has left a very large fortune. The Naval and Railway Blast-Furnaces and Forges Company has announced the payment of a dividend of 18s. per share.

The John Cockerill Company has obtained a contract for 3000 tons of steel rails for a Russian strategic railway. The Russo-Turkish war has not been without some profit to Belgian industrialists. Iron barracks, arms, rails, pontoons, have all been ordered in turn by the Russian Government to complete its war material, and the continuance of hostilities leads to an anticipation that Belgium will still find in the East some outlet for her products. The price at which the 3000 tons of steel rails just ordered are to be delivered remains a mystery, it is either very low or very exaggerated, and opinion appears to incline towards the latter hypothesis. The rails are to be delivered within a very brief period, and great efforts and even sacrifices are to be made in order to attain this object. The Belgian Metallurgical and Colliery Company has had for some time in warehouse at its Tabize Works 12 locomotives, which had remained on their hands in consequence of the failure of the coal basins of the Hainaut Company. The manufacturing company has just sold these engines to a foreign client; five of them were dispatched this week, and the others will follow. The engines are of the type used on the Belgian State lines, and they are quite new. The Belgian Metallurgical and Colliery Company has been negotiating with an external client a rather important contract for goods trucks, but the result of the negotiation has not at present transpired. The Belgian Company for the Construction of Engines and Railway Plant has just secured a contract for four locomotives, to be delivered immediately. The St. Leonard Company, at Liège, has further obtained an order for two engines, and the John Cockerill Company for four, the whole being required for exportation. These engines having been made speculatively in advance during times of depression can now be delivered at once. The sale of 22 locomotives thus announced is calculated to give courage to Belgian industrialists. A ship of 1000 tons burthen has been launched by the John Cockerill Company at Hoboken-les-Anvers; this ship is intended for the conveyance of minerals from Somorostro, near Bilbao, and a second vessel of the same dimensions is in course of construction in the same yard. A contract of 500 goods trucks for the Rhenish Railway is to be let on the 15th inst. at Cologne.

The Paris copper market has remained without animation, and the article has fallen slightly. In Germany the transactions in copper have been unimportant, and prices have experienced no change. Tin has been firm at Rotterdam, although transactions have not presented much importance. For Banca as much as 42½ fl. has been paid; in Billiton transactions have taken place at 41½ fl. At Paris tin has been rather firmer. The German tin markets have also been well supported. Lead has sustained its price at Paris, but transactions have been unimportant. The German lead markets have ruled firm. There has been little business passing in zinc at Paris, but prices have been supported. The German zinc markets have remained without change.

ANTI-FRICTION BEARINGS.—The use of revolving rollers for bearings has not hitherto proved very successful, but Mr. JOHN ROBINSON, of Sheffield, has invented some improvements which he believes will remove the difficulties which have been encountered. In the construction of a bearing for ordinary purposes he provides several rollers of equal lengths and diameters, and each having an annular groove or neck, turned or otherwise, formed at a short distance from each end; he then prepares two circular frames, the internal diameter of which slightly exceeds the diameter of the shaft to which the bearing is to be applied. Each frame consists of four semi-circular plates or pieces, forming when put together two washers or complete circles, one washer having slots corresponding in size to the necks of the rollers and opening to the outside, and the other washer having similar slots opening to the inside, thus when the two washers are put together and the slots opposite each other, the solid parts of the washers close up the entrance of the slots, leaving

ing circular holes at equal distances round the washer, thus keeping the rollers equidistant. The four parts of the frames are secured by screws or other suitable means. For some purposes he prefers to turn a single groove in the middle of the rollers, and in that case only uses one frame, and in the case of long bearings he may use the two end frames and a centre one combined. According to another modification, he simply uses solid circular washer-shaped frames with the slots, having rounded ends opening to the outside into which the necks of the rollers are dropped. The rollers in all cases are of larger diameter than the width of the frame, and, therefore, project beyond the inside and the outside of the frames, so that the shafting revolves on the rollers clear of the frame, and the outer surface of the rolls revolve and bear on the pedestal, or other bearing frame, causing the entire frame and rollers to revolve. Thus the entire frame with the rollers revolves round its own axis as well as each roller revolving round its own separate axis. By constructing the frames in parts in the manner herein before described facility is afforded for applying the rollers to sunk necks and positions otherwise inaccessible. The number of rollers, as also their lengths and diameters, may be varied according to circumstances. They may be composed of any suitable material, but he employs by preference hardened steel for the purpose.

ROLLING AND FINISHING ANGLE IRON.

Some two years since some improvements in rolling strip, hoop, bars, and other sections of iron or steel, were patented by Messrs. W. BROWNHILL, jun., and T. H. SMITH, of Walsall, and they now propose further to apply the invention in carrying out another for improvements in the manufacture of angle iron and other sections hereinafter mentioned, in the production of which it has hitherto been formed from the pile, after breaking down by being worked through angular grooved rolls, and delivered from them in a finished condition, from which it will be understood that the meeting of the finishing grooves represents (in the hollow) the exact counterpart of the angular section desired to be rolled; that is to say, the true form and extent of the sectional angle, has been imparted to the iron from the form of the grooves through which it has passed from the heated pile to the finished angle. Angular iron thus produced has the disadvantage of being restricted in its length, as also of not being evenly worked or rolled down from the pile in its granular structure; but by their improved means of rolling they purpose reducing the pile to a strip or bar of the required thickness and finish on the edges, an operation done with unusual rapidity, as the strip when rolled is still in a highly heated condition, which they utilise by at once pointing or shaping the strip so formed, and sending it through angular grooved rolls working in the same or other convenient train, thus converting the strip technically into angle iron, in which process great diversity of size and shape may be imparted; as, for instance, the angle of the iron may be right, acute, or obtuse, a positive angle on its exterior, and rounded and strengthened on the interior, or rounded both in the interior and exterior; or one flat portion of the angle may be narrower or wider than the other, and the length limited to the size or quantity of metal in the pile or bloom under.

In some cases for large strong sections of angle iron the ordinary process of rolling the pile or bloom to a flat bar may be pursued, as in working large bodies of iron the workable heat is longer retained, so that after rolling the pile or bloom flat by the two-roll principle, the flat bar will still retain sufficient heat to pass through shaping rolls to give it the desired angular form. By thus producing angles from regular or irregular strips or bars, they are enabled to produce them of large size and great length, down even to the conversion of ordinary hoop iron, direct from the pile or bloom to the finish; and in like manner by altering the combined shape of the finishing grooved rolls they are enabled to roll channel or other sections that may be required, observing that they do not purpose making their angles or other sections of strip or flat iron of a uniform thickness, as in some instances, where additional strength is required either in the angle or at the edges of the planes of the angle, they roll the strip or bar of unequal thickness as required.

FURNACES FOR BURNING SLACK.

Although it is much less difficult at the present time to find a market for slack than it was a few years ago, the advantage of utilising it in furnaces and without preparation can scarcely be overrated. In connection with the invention of Mr. FREDERICK HART, of Tavistock-road, the steam-boiler employed consists of an upright cylinder or cylindrical shell, closed at the top and bottom, and within it there is a drum of similar form and of such dimensions as to leave a water space all round between the shell and the drum within it. There is also a space over the top of the drum such as to provide adequate accommodation for the steam and permit at the same time of the top of the drum being always covered by the water in the boiler. Vertical water tubes pass through the drum from top to bottom; the furnace communicates with the interior of the drum by a slit or opening formed partly around the bottom and lower part of the side of the drum, and at a point opposite to this slit or opening there is another passage through the drum and the outer shell leading from the interior of the drum to the chimney. In order to accommodate the furnace the outer shell of the boiler is cut away at the part corresponding to the slit or opening in the drum, and here the shell is connected with the side of the drum in such manner as to form a hanging bridge extending partly around the boiler. At this part also the bottom of the drum is connected with the outer bottom, and so a cavity is formed extending partly underneath the boiler. This cavity serves as an ash pit; the ash pit, however, extends beyond the outer shell of the boiler fire-bars from the top of it, and it is closed underneath by doors, so that there is no free admission of air beneath the fire-bars. The parts of the fire-bars which project beyond the outer shell of the boiler are inclined upward so that their outer ends rise as high as the under surface of the hanging bridge.

The supply of the fuel is entirely distinct from the air entrance, which is never in any way interfered with. At some distance above the fire-bars there is a hopper to receive the slack to feed the fire, and the fuel descends from this hopper through a comparatively narrow channel, which, however, widens rapidly as it approaches the part of the furnace where the small coal commences to swell with the heat. Between the lower end of this channel and the fire-bars the fuel forms a heap resting upon the fire-bars and against the outer side of the hanging bridge; on the outer side of the heap curved bars or plates are provided to keep the heat within due bounds so that there may not be too great a thickness of fuel, but these bars or plates are arranged to obstruct as little as possible the free access of air to the outer side of the heap. The small fuel coheres in the lower part of the channel leading from the hopper and forms lumps between which afterwards the air is able to pass freely. The fuel so caked into lumps forms a heap on the fire-bars, and the air striking downwards through the outer side of this heap, and passing through it and beneath the hanging bridge, effects the combustion. The ashes fall through the spaces between the fire-bars into the ashpit and are removed from time to time. The ashpit is air-tight except whilst the ashes are removed, so that there is no draught through the bottom fire-bars. Mr. Hart cases in the channel descending from the hopper and also the front of the pile of fuel, and causes the air to pass through the casing around this channel as it goes to supply the combustion; thus the channel is kept cool up to the point at which it is desired that the heating should commence, and partially heated air is supplied to the fire; loss of heat by radiation is also lessened.

Although the primary object of the invention was the generation of steam it will of course be understood that furnaces and fire-places constructed in the same way may be used for various purposes. The furnace or fire-place, as constructed without the steam-boiler, consists of, first, a throat or narrow channel for the slack to descend to the furnace; the lower end of this channel widens rapidly as it approaches the part of the furnace where the slack commences to swell with the heat; immediately below the mouth of the channel, both at the front and back, or all round, are placed inclined or level bars still following up the shape of lower end of the channel; the air passing

* Columbia and Canada: Notes on the Great Republic and the New World. A Supplement to "Westward by Rail," by W. FRASER RAE, London: Long, Lohr, and Co., Ludgate Hill.

through these bars becomes mixed with the gas given off by the coking coal and passes downward through the incandescent part of the fire. At the bottom of these bars there is a fire brick or water bridge at both back and front, or only at the back, as desired; the lower edge of this bridge is some distance below the point where the coal loses all its gas. At a sufficient distance below the bridge to allow the required area for the escape of the products of combustion is the floor of the furnace, which floor extends beyond the bridge to rather more than the height of the bridge from the floor.

Meetings of Public Companies.

WHEAL UNY MINING COMPANY.

A general meeting of shareholders was held at the company's offices, Austinfriars, on Wednesday.

Mr. R. McCALLAN in the chair.

Mr. JAMES HICKEY (the secretary) read the minutes of the meeting and the minutes of the preceding one, which were confirmed. The statement of accounts for the quarter ending September, showing a loss on the three months' working of 1924. 14s. 1d., and a debit balance of 1469s., together with the subjoined report of the agent, were submitted:—

Oct. 29.—Since your last general meeting we have been urging on the different points of operation on the mine. The rise in back of the 80 west is worth 6s. per fathom; there is a great deal of unexplored ground between this level and the 40, and we hope the lode will improve as it is being opened out. The stone in the back of the 110, east of King's, is worth 10s. per fathom. Two stopes in the back of the 120 east are worth 8s. and 10s. per fathom respectively. The 130 east, east of King's, is worth 8s. per fathom. A stope in the back of the 130 east is worth 12s. per fathom. The 140 east is worth 12s. per fathom. Three stopes in the back of this little are worth 30s. per fathom in the aggregate. The 150 end, east of King's, is worth 5s. per fathom, but looking at the run of tin ground in the 140 east we ought soon to have an improvement in this level. The 150 end, west of incline shaft, is worth 8s. per fathom. A stope in the back of this level is worth 15s. per fathom. The rise in the back of the 160, east towards Gooding's shaft, carries stone of tin; this rise is intended to make Gooding's shaft good for hauling through from the bottom of the mine, as well as for ventilation. The 160 end, west of incline, is worth 10s. per fathom. A stope in the back of this level is worth 10s. per fathom. Hind's shaft below the 160 is worth 25s. per fathom for the length of the shaft—14 feet. The mine, on the whole, is looking well. We have sold a greater quantity of tin (94 tons) during the past twelve weeks than has ever before been raised in the same period of time, but we regret to state the average price has also been lower than hitherto. A few years ago the tin sold from this mine brought 93s. 10s. per ton, but during the past quarter it has fallen to 37s. 6s. per ton. We are, however, encouraged to persevere by the hopeful state of the tin market. Our tin ore now makes 4s. 5s. per ton in excess of what we had to sell for two months since. We hope soon to see tin at a fair average price, when this mine would do well.—WILLIAM RICH, MATTHEW ROGERS, JOSEPH RICH.

The CHAIRMAN remarked that upon reference to the accounts they would notice that a greater quantity of tin had been sold during the quarter than in any previous three months, but unfortunately those sales had been effected at a lower average price. He was glad, however, to say that the depression which had so long been observable in the market appeared to be now passing away, as a very gratifying upward movement appeared to have now fairly set in. They had, it was true, made a loss of about 1900. upon the quarter's operations, but the meeting would be glad to learn that even at the current rates of to-day not only would they have shown no loss, but a small profit would have been the result. The next matter which would have to receive their consideration was the financial condition of the company. They would remember that at the last meeting it was considered desirable that the question of making a call should be postponed in consequence of the general depression which was then prevailing; now, as a material improvement appeared to have taken place he thought a call ought to be made to pay off the existing balance and place the mine in a sound position. With regard to the mine itself, and the operations going on there, they had heard the agents' report read, and were, therefore, as well informed upon the subject as himself; but he might congratulate them that the property was looking better than at any previous time. He had told them that the upward movement in the tin market had already commenced, and he thought the meeting would agree with him that to look forward to 50s. per ton for tin was not entertaining an extravagant expectation; yet at that price, with no more than their present returns, they would be able to give a 5s. dividend. He was not aware that there were any further observations which he had to make, but if any additional particulars were desired, either as to the accounts or the operations at the mine, he would have much pleasure in answering any enquiry which the shareholders might have to make. He concluded by formally moving the resolution for the adoption of the report and accounts.

Mr. W. PIKE said that there was no question that the tin market showed signs of permanent improvement, although from the large number of "bears" at present operating in the market there might be even a temporary decline. The general feeling in Cornwall was decidedly better, and this would not be unless there were grounds for it. It would be noticed that within the past few weeks some properties had doubled, and even more than doubled, in value. Dolcoath, Carn Brea, Tincroft, and other mines in the same neighbourhood being among the number. There had been a panic not long since, and much had been said of the heavy debts for which some mines were liable; but he could assure them that the majority of miners in Cornwall thought very little of a heavy debt if they had a good mine, as a comparatively small advance in the price of mineral soon enabled them to pay to clear it off.

A SHAREHOLDER understood that it was proposed to make a call, and asked what the amount would be?—Mr. HICKEY said that the committee considered a call of 4s. per share would be necessary, and probably the meeting would be of the same opinion.

The call of 4s. per share was then formally proposed and unanimously agreed to, and, thanks having been voted to the Chairman, the proceedings terminated.

VALE OF CONWAY LEAD MINING COMPANY.

The first annual meeting of shareholders was held at the mine, near Llanrwst, on Saturday.

Mr. HUGH PUGH (Mayor of Carnarvon) in the chair.

The SECRETARY read the notice convening the meeting. The reports of the directors and agent and the accounts were adopted.

Mr. ROWSE, the managing director, stated that the company had only commenced operations since April last, and he thought that everyone who had inspected the work which had been accomplished would be fully satisfied that it had been carried out most thoroughly and economically, and reflected great credit on Capt. Roberts.

Mr. HARVEY (director) fully concurred with the statements expressed by Mr. Rowse. He had visited the mine in May last, when little had been done, and on the surface preparations only were being made. Now they had erected a water-wheel and crusher, together with the necessary buildings, 200 yards of ladders had been made and laid down, two long tramways had been completed to the dressing floors, the latter being also new. Everything had been arranged by the manager and agent to meet the requirements of a large development of the mine, and he could but congratulate the shareholders on the workmanlike manner in which the various details had been carried out.

Capt. ROBERTS, the resident agent, said that the prospects of the mine at its present stage of development was very encouraging. The east and west lode was especially of a very promising character. He did not consider that so much importance should be attached to the time it would take to intersect the Rabbit lode; for whether he had 10 fms. or 20 fms. further to drive before reaching that point, it should not be lost sight of that such driving was all on an ore-producing lode, and that stopping ground would be opened up the full distance to the intersection of the lodes. He had already extracted a large quantity of leadstuff, which was now ready for the crusher. This lode having proved very productive in the adjoining mine gave additional interest to the workings in our mine. We shall shortly, at a trifling outlay, bring in another level deeper than the one we are now driving, which will open up a long run of stopping ground, materially adding to the pit as at the crusher-house. There were several other important points to be considered. The main north and south lode is a large well-defined lode, and one of the most productive in this district. A good run of lead is to be seen in the bottom of the old mine, which can be drained by bringing in a stope of ground about 10 ft. high; and by continuing the shaft level as far south as the junction of the counter lode, he believed that a larger quantity of ore would be met with than has yet been seen in the mine. By driving north we shall be getting under a long run of old workings, which has yielded considerable bodies of ore, and contain 10 fms. of untouched ground. By these drivings one or two counter lodes running into the mountain would be opened up, and by driving a short distance on their course from 50 fms. to 60 fms. of backs would be won. Taking what he had mentioned into full consideration, as well as the other points which would occupy too much of their time to dilate on, he believed the mine will eventually exceed anything yet anticipated by those who had seen it; for his own part he had advised his friends to invest in the shares of the company.

Mr. ST. STEPHENS remarked that having inspected the mines for the directors in August of last year, previously to the formation of the company, he was pleased to find that his report had so far been fully realized; and from the observations he had made that day and the appearances presented in the breast (and

winze adjoining) of the end or lode, he was the more convinced that the company possessed a very valuable mineral property which would ere long be enquired after by investors in lead mines.

The retiring directors were re-elected, and Mr. de Metz, the auditor of the company, was also re-elected. At the conclusion of the business of the meeting the shareholders assembled around the crusher-house to inspect the machinery and water-wheel, which had been recently erected, and to formally set the latter in motion. On the water being turned on the wheel revolved with considerable ease, the various parts of the mill being so nicely arranged and neatly fitted that the operations of crushing, jigging, and grinding were effected with a smoothness and quietness surprising even to the initiated. There was a thorough absence of that jolting and jerking which always attends the crushing of such hard rock as was provided to test the machinery. Great credit is due to the manufacturers, the Sandycroft Foundry and Engine Company, for the completeness and workmanship shown in the construction of the wheel (30 ft. diameter), and the various bearings of the mill, and to the managing director (Mr. Rowse) and Captain Roberts for the efficient manner in which the works had been planned and laid out, considerable satisfaction being expressed by all present.

TRELEIGH WOOD MINE.

At a general meeting of shareholders, held at the office of the company on Wednesday (Mr. T. V. SMITH in the chair), a statement of account showing a cash balance in hand of 10317. 16s. 1d., and of liabilities and assets (including the estimate of costs and returns for the next three months) showing an estimated balance against the mine of 2117. was laid before the shareholders, and passed. Capt. W. Goldsworthy, having been requested to attend this meeting, was questioned as to the present and future prospects of the mine, and gave it as his opinion that with a further rise in the price of tin there would be no difficulty in making the returns equivalent to the expenditure, and it depended on any further advance in the standard as to whether a permanent monthly profit could be made, seeing that the monthly sales had increased it might be supposed that the mine was being worked unfairly, but he assured the meeting that such was not the case, and that he was discovering more ore than he was taking away. As tin advanced, so he would be enabled to take away ground that could not be worked at present except at a loss. He had every reason to believe that with the present standard he could bring to market from 11 to 12 tons of tin per month without materially increasing the cost and without injury in any way to the property. There were three ends being pushed on with all speed, and he hoped the 34 fm. level would soon reach the shoot of ore which had proved so productive in the level above.

On discussing ways and means, the SECRETARY stated that there were ample funds in hand to considerably reduce the liability to the merchants (18000.), and he hoped, with an improvement in the price of tin, to clear off the remainder of the debt before the next meeting.

Mr. LAWS stated that the last sale left a profit, and he hoped, from what he had heard from an independent report, that his estimates of the next three months' sales might be considerably augmented.

The estimated balance against the mine being but 2000., no call was deemed necessary, and the meeting separated.

FRONTINO AND BOLIVIA GOLD MINING COMPANY.—At the meeting of shareholders held yesterday, at the Cannon-street Hotel, the report and accounts were adopted. The proceedings were of a satisfactory character, and the reports from the mines are encouraging. The disastrous revolution with which the States of Columbia were visited in August, 1876, and which continued until March last, had the effect of reducing the number of men at the mine. The revolution is now entirely suppressed, and those best informed on the subject are of opinion that the States may now look forward to a long period of peace and commercial prosperity. This is what is chiefly required to allow of the full development and working of the mines and the return of handsome dividends to the shareholders. A full report of the proceedings will appear in next week's Journal.

WESTERN ANDERSON MINING COMPANY.—At the meeting of shareholders yesterday the report of the directors was adopted. A report of the proceedings will appear in the Journal of next week.

Original Correspondence.

THE LISBURN MINING DISTRICT—THE CARON LEAD COMPANY.

SIR,—I have read with pleasure in last week's Journal Capt. Kneebone's interesting letter on the above mine, and I consider it satisfactory to find his opinion so confirmatory of all that was stated at the recent meeting of the company. I can fully agree with Capt. Kneebone as to the prejudice that certain persons exhibit towards the opening up of fresh mines in the locality treated of, though why it should be so I cannot explain, as I should imagine that the more the development of the mineral resources of the Lisburne district is extended the better it would be for all parties interested in its welfare. With respect to the Caron Mine itself, no person who sees it, even though his knowledge of lead mining be most superficial, can fail to do otherwise than at once form a good opinion of its capabilities. The present works are, it is true, shallow, but the extent of ore ground already laid open for upwards of 50 fathoms in the adit level, and for a considerable length in the other levels, is in itself such a sight as can very seldom be seen in young mines, even in this famous district, and there are apparent in the lode all those indications of improvement at greater depths which practical miners delight in observing.

This mine has doubtless yielded a good deal of ore from ancient workings on the top of the lode, but nothing to what may be expected from deeper and more scientific development, for, as Capt. Kneebone truly remarks, the lode, though narrow at the top, gradually increases in size and value down to the bottom of the shaft, and there are many unmistakable indications that such improvement will increase as greater depth is attained. The lode itself is extremely well defined, it runs parallel to the celebrated Lisburne, and other productive lodes, and is identical with them in external features and in geological structure. I consider that the remark made by Capt. Kneebone that it is "very similar to the rich Glog-fach lode," ought to be very satisfactory to the Caron shareholders, for I understand that that lode has yielded something like 10,000 tons of lead.

Considering that the company is amply provided with capital (every share having been taken and allotted), and that the local management has been entrusted to vigorous hands (Mr. J. Kitto, of the Grogwinion Mine being the manager), I feel every confidence that the mine's development will be both rapid and profitable, and I look upon the concern as one of the most legitimate investments that has been submitted to the public for a very long time.

Nov. 1.

A SHAREHOLDER.

NEW QUEBRADA MINING COMPANY.

SIR,—I desire through your widely-spread Journal to make an observation and utter a word of warning to my co-shareholders. In the circular which the Quebrada board issued some days ago there was their usual assurance of wishing the shareholders to know all they knew. They knew at that time (among other things kept back) the date of departure from England of the person they had selected to go out to the mines as assayer and ore-assorter for the company. Of course if they had given us that date we should have been in a position to estimate pretty exactly the time of his arrival at the mines. This (read now by the light of a private letter from the Quebrada property) is, to me at least, of no trifling import. The letter referred to states most distinctly that the assayer sent out had reached the mines, and was preparing two cargoes of ore, which it was believed would show at Swansea an average of copper equal to 23 or 25 per cent. It has occurred to me that if the directors in their recent circular had wished to be so fair towards us as they would have us believe, why did they not plainly say to all shareholders—"Our assayer sailed hence on a certain date, he will reach the mines by another certain date, will at once proceed to select for us by actual assay a cargo or two of high-grade ore, and we may expect a very different result from 8 per cent. by about such and such a date." This would have been a just course. But to let shareholders in scores rush and sell out their holdings in the company, as they have within the past ten days done, when the knowledge I

have cited would have saved them from so doing, is, to say the least, in my opinion, not a course worthy of honourable business men. Again, are the shareholders aware that a most favourable arrangement for uniting the Bolivar Railway and the New Quebrada Companies is rapidly maturing. If not, I can tell them such is the case. Have the board any personal interest in keeping this latter fact quiet? More anon.

Shepton Mallet, Nov. 1.

AN OLD SHAREHOLDER.

FLAGSTAFF SILVER MINING COMPANY OF UTAH.

SIR,—In the Journal of last week, under the head "Flagstaff," you have some observations on Mr. McBride's denunciation of Mr. Edgerton, which my directors think you would not have made had you been acquainted with the nature and extent of the provocation. Mr. Edgerton is not, and never was, a "servant of the company," nor has he ever been authorised to act in any way on the company's behalf. The letters in question were addressed to the Chairman of the company, and were laid before the Board as a matter of course, therein, as well as those made in subsequent letters to the Utah papers, will receive their refutation in due course.

Great Winchester-street, Nov. 2.

A. A. DE METZ.

FLAGSTAFF MINING COMPANY.

SIR,—As a large holder in Flagstaff shares, and as one who must confess that he looks to the columns of your valuable Journal for almost every item of information which he gets with anything like punctuality respecting this company's affairs (as if the board tell us anything at all it seems to be weeks "after the fact"), I write now to ask the directors flatly whether they, or any one of them, in possession of a full account of the very recent ore discoveries at large has been received by different parties to the shareholders during the present week, and I have been daily hoping for some manifestation of it from the board. It certainly does not look well for the directors, or any one of them, to keep most valuable intelligence locked up in the waistcoat pocket, as it smacks of private use, even for one day.

[For remainder of Original Correspondence see this day's Supplement.]

THE WEEK.

SATURDAY, OCT. 27.—There was a remarkable spurt in Carn Brea shares; a day or two ago the price was 38 to 40. To-day there were eager buyers at 44, the price closing 46 to 48. It is worth bearing in mind that at the commencement of the present month, although there had then been an advance in the standard, Carn Brea shares could be got at 22. We are, therefore, witness of an advance of more than 20 per cent. per share. Had this occurred in a foreign loan or in railway stock it would have been much made of by City editors. As is well known, the Flagstaff and Frontino were all in demand, each advancing 1s.; this was making up, day, always felt as an inconvenience when falling on such a short day as Saturday.

MONDAY.—Metropolitan District touched 59; North British was neglected at 91½. There were no other changes in the railway market calling for notice. A view of to-morrow's meeting (when it is usual to place matters in the most favourable light) of Grand Trunk shareholders, there was some demand for the stock. The First advanced 1½, to 47, the Second closed at 30½, and Third at 17½. The ordinary shares were quoted 9 to 9½, as far as regards any demand on these prospects are dismal enough, the various leased lines absorbing all the profits. Carn Brea maintained Saturday's rise, closing 46 to 48. The Mountain, 9s. to 11s.; West Wye Valley, 3 to 3½; Llanrwst, 2½ to 3; Portllyn in demand at 10s., and Eberhardt at 5½. Condes of Chili and Argentine difficult of sale, and quotations nominal.

TUESDAY.—The Grand Trunk meeting passed off in the usual cheerful and hopeful manner, notwithstanding which a few holders of First Preference thought it desirable to sell, causing yesterday's rise to be quite lost. Wheel Bassett shares were credited with a rise of 4½. At the commencement of the month the shares were said to have been hawked about at 10s. In the local markets, Royal 12½ to 15. It was in August of last year that the last dividend (30s. per share) was declared here. There had then been called up 12s. 2d. per share, and 638s. 10s. returned in dividends. Port Phillip was in demand at 12s. 6d.; the return made up to Oct. 10 is reported to be the largest received for years. The recent dividend of silver made by the Eberhardt Company in stimulating purchasers. There was a rise of 10s. to-day, and shares were firm at 5½ to 8. It was noticed at Lovell, Wheel Jane, Wheel Kitty, Medlyn Moor, and West Goldopolis, have, so far, been hardly affected by the spurt in Cornish mining; perhaps the turn has to come.

WEDNESDAY.—Railways were dull from the commencement. Caledonian to 124, and Great Western to 101. Mining shares were again in considerable demand, and several further important advances were established. Richmond was to 5, and Eberhardt to 7, being a rise of 1½ in each case. Flagstaff Improved to 2½. The Mexican Railway are advised that \$42,000 have been shipped to San Cruz to pay expenses here, and that the traffic earnings for September amount to \$21,000. The shares now quoted 1¼ to 1½ may improve. Royal 12½ to 15; Varna, 1 to 1½; Obligations, ditto, 1½ to 2. All these are at present very low.

THURSDAY.—Holiday on Stock Exchange. FRIDAY (Opening).—Richmond fully maintains the strong rise of Wednesday. Shares can readily be sold at 8½, and a further advance is expected. A further important advance has taken place in Eberhardt. Shares are at 7½. A further advance has been struck at a fresh point in the tunnel. Flagstaff are quoted 2½ to 3½, and Port Phillip 10s. to 12s. 6d. In railways, Sheffield is 1 per cent. higher, at 85½. South Devon, 9 to 9½; Wheel Grenville, 3½ to 4; Cook's Kitchen, 2½ to 3½. Lovell shares are now valued at 2½, they were considered to be worth just as many shillings a short time back. Two o'clock.—Eberhardt has been done at 8½, but are now easier at 7½ to 7¾. Richmond firm at 8½. Llanrwst, 2½ to 3½. Van, 3 to 3½. Ladywell, 3½ to 4½. Rookhope, 2½ to 3½. The rise in Sheffield has not only been completely lost, but the price (8½ to 9½) is lower than it was on Wednesday. Penrith, 10s. to 7s. Van Connel, 5½ to 6½. Aberdunant, 5 to 5½. Kapanza, 1½ to 1¾. West Goldopolis, 1½ to 1¾. Four o'clock.—Eberhardt have given way further to 6½ to 7. Richmond are easier at 7½ to 8. Russian of 1873 are up to 78½. Chapel House Colliery, 2½ to 3. Altam, 4 to 4½. Newport Abercrom, 3½ to 4½. Great Western, 2 to 2½ (19d. paid). Thorpe Gawber, 2½ to 3. Llay Hall, 6 to 7. Bluen and Crump, 4 to 4½.—Birch-lane, Nov. 2.

CHEMICALS, MINERALS, AND METALS.—Messrs. J. Berger Spence and Co. (Oct. 27).—Acetate of Lime, 9s. per ton for 70 p.c. Alumina, 4s. 6d. 10s. for loose lump; ground, 7s. 10s.—Alumina, 4s. 6d. Ammonia, 2s. 6d. 3s. 6d. 4s. 6d. 5s. 6d. 6s. 6d. 7s. 6d. 8s. 6d. 9s. 6d. 10s. 6d. 11s. 6d. 12s. 6d. 13s. 6d. 14s. 6d. 15s. 6d. 16s. 6d. 17s. 6d. 18s. 6d. 19s. 6d. 20s. 6d. 21s. 6d. 22s. 6d. 23s. 6d. 24s. 6d. 25s. 6d. 26s. 6d. 27s. 6d. 28s. 6d. 29s. 6d. 30s. 6d. 31s. 6d. 32s. 6d. 33s. 6d. 34s. 6d. 35s. 6d. 36s. 6d. 37s. 6d. 38s. 6d. 39s. 6d. 40s. 6d. 41s. 6d. 42s. 6d. 43s. 6d. 44s. 6d. 45s. 6d. 46s. 6d. 47s. 6d. 48s. 6d. 49s. 6d. 50s. 6d. 51s. 6d. 52s. 6d. 53s. 6d. 54s. 6d. 55s. 6d. 56s. 6d. 57s. 6d. 58s. 6d. 59s. 6d. 60s. 6d. 61s. 6d. 62s. 6d. 63s. 6d. 64s. 6d. 65s. 6d. 66s. 6d. 67s. 6d. 68s. 6d. 69s. 6d. 70s. 6d. 71s. 6d. 72s. 6d. 73s. 6d. 74s. 6d. 75s. 6d. 76s. 6d. 77s. 6d. 78s. 6d. 79s. 6d. 80s. 6d. 81s. 6d. 82s. 6d. 83s. 6d. 84s. 6d. 85s. 6d. 86s. 6d. 87s. 6d. 88s. 6d. 89s. 6d. 90s. 6d. 91s. 6d. 92s. 6d. 93s. 6d. 94s. 6d. 95s. 6d. 96s. 6d. 97s. 6d. 98s. 6d. 99s. 6d. 100s. 6d. 101s. 6d. 102s. 6d. 103s. 6d. 104s. 6d. 105s. 6d. 106s. 6d. 107s. 6d. 108s. 6d. 109s. 6d. 110s. 6d. 111s. 6d. 112s. 6d. 113s. 6d. 114s. 6d. 115s. 6d. 116s. 6d. 117s. 6d. 118s. 6d. 119s. 6d. 120s. 6d. 121s. 6d. 122s. 6d. 123s. 6d. 124s. 6d. 125s. 6d. 126s. 6d. 127s. 6d. 128s. 6d. 129s. 6d. 130s. 6d. 131s. 6d. 132s. 6d. 133s. 6d. 134s. 6d. 135s. 6d. 136s. 6d. 137s. 6d. 138s. 6d. 139s. 6d. 140s. 6d. 141s. 6d. 142s. 6d. 143s. 6d. 144s. 6d. 145s. 6d. 146s. 6d. 147s. 6d. 148s. 6d. 149s. 6d. 150s. 6d. 151s. 6d. 152s. 6d. 153s. 6d. 154s. 6d. 155s. 6d. 156s. 6d. 157s. 6d. 158s. 6d. 159s. 6d. 160s. 6d. 161s. 6d. 162s. 6d. 163s. 6d. 164s. 6d. 165s. 6d. 166s. 6d. 167s. 6d. 168s. 6d. 169s. 6d. 170s. 6d. 171s. 6d. 172s. 6d. 173s. 6d. 174s. 6d. 175s. 6d. 176s. 6d. 177s. 6d. 178s. 6d. 179s. 6d. 180s. 6d. 181s. 6d. 182s. 6d. 183s. 6d. 184s. 6d. 185s. 6d. 186s. 6d. 187s. 6d. 188s. 6d. 189s. 6d. 190s. 6d. 191s. 6d. 192s. 6d. 193s. 6d. 194s. 6d. 195s. 6d. 196s. 6d. 197s. 6d. 198s. 6d. 199s. 6d. 200s. 6d. 201s. 6d. 202s. 6d. 203s. 6d. 204s. 6d. 205s. 6d. 206s. 6d. 207s. 6d. 208s. 6d. 209s. 6d. 210s. 6d. 211s. 6d. 212s. 6d. 213s. 6d. 214s. 6d. 215s. 6d. 216s. 6d. 217s. 6d. 218s. 6d. 219s. 6d. 220s. 6d. 221s. 6d. 222s. 6d. 223s. 6d. 224s. 6d. 225s. 6d. 226s. 6d. 227s. 6d. 228s. 6d. 229s. 6d. 230s. 6d. 231s. 6d. 232s. 6d. 233s. 6d. 234s. 6d. 235s. 6d. 236s. 6d. 237s. 6d. 238s. 6d. 239s. 6d. 240s. 6d. 241s. 6d. 242s. 6d. 243s. 6d. 244s. 6d. 245s. 6d. 246s. 6d. 247s. 6d. 248s. 6d. 249s. 6d. 250s. 6d. 251s. 6d. 252s. 6d. 253s. 6d. 254s. 6d. 255s. 6d. 256s. 6d. 257s. 6d. 258s. 6d. 259s. 6d. 260s. 6d. 261s. 6d. 262s. 6d. 263s. 6d. 264s. 6d. 265s. 6d. 266s. 6d. 267s. 6d. 268s. 6d. 269s. 6d. 270s. 6d. 271s. 6d. 272s. 6d. 273s. 6d. 274s. 6d. 275s. 6d. 276s. 6d. 277s. 6d. 278s. 6d. 279s. 6d. 280s. 6d. 281s. 6d. 282s. 6d. 283s. 6d. 284s. 6d. 285s. 6d. 286s. 6d. 287s. 6d. 288s. 6d. 289s. 6d. 290s. 6d. 291s. 6d. 292s. 6d. 293s. 6d. 294s. 6d. 295s. 6d. 296s. 6d. 297s. 6d. 298s. 6d. 299s. 6d. 300s. 6d. 301s. 6d. 302s. 6d. 303s. 6d. 304s. 6d. 305s. 6d. 306s. 6d. 307s. 6d. 308s. 6d. 309s. 6d. 310s. 6d. 311s. 6d. 312s. 6d. 313s. 6d. 314s. 6d. 315s. 6d. 316s. 6d. 317s. 6d. 318s. 6d. 319s. 6d. 320s. 6d. 321s. 6d. 322s. 6d. 323s. 6d. 324s. 6d. 325s. 6d. 326s. 6d. 327s. 6d. 328s. 6d. 329s. 6d. 330s. 6d. 331s. 6d. 332s. 6d. 333s. 6d. 334s. 6d. 335s. 6d. 336s. 6d. 337s. 6d. 338s. 6d. 339s. 6d. 340s. 6d. 341s. 6d. 342s. 6d. 343s. 6d. 344s. 6d. 345s. 6d. 346s. 6d. 347s. 6d. 348s. 6d. 349s. 6d. 350s. 6d. 351s. 6d. 352s. 6d. 353s. 6d. 354s. 6d. 355s. 6d. 356s. 6d. 357s. 6d. 358s. 6d. 359s. 6d. 360s. 6d. 361s. 6d. 362s. 6d. 363s. 6d. 364s. 6d. 365s. 6d. 366s. 6d. 367s. 6d. 368s. 6d. 369s. 6d. 370s. 6d. 371s. 6d. 372s. 6d. 373s. 6d. 374s. 6d. 375s. 6d. 376s. 6d. 377s. 6d. 378s. 6d. 379s. 6d. 380s. 6d. 381s. 6d. 382s. 6d. 383s. 6d. 384s. 6d. 385s. 6d. 386s. 6d. 387s. 6d. 388s. 6d. 389s. 6d. 390s. 6d. 391s. 6d. 392s. 6d. 393s. 6d. 394s. 6d. 395s. 6d. 396s. 6d. 397s. 6d. 398s. 6d. 399s. 6d. 400s. 6d. 401s. 6d. 402s. 6d. 403s. 6d. 404s. 6d. 405s. 6d. 406s. 6d. 407s. 6d. 408s. 6d. 409s. 6d. 410s. 6d. 411s. 6d. 412s. 6d. 413s. 6d. 414s. 6d. 415s. 6d. 416s. 6d. 417s. 6d. 418s. 6d. 419s. 6d. 420s. 6d. 421s. 6d. 422s. 6d. 423s. 6d. 424s. 6d. 425s. 6d. 426s. 6d. 427s. 6d. 4

HOLLOWAY'S OINTMENT AND PILLS—LIMB AND LIFE.—Not many years ago some ulcerations and diseases of the joints placed in peril the affected limb whose loss was recommended to spare the weak of the body.—Now the discovery of these noble remedies has placed in the power of the physician to cure the worst maladies no longer a matter of doubt. The use of a treatment preserves the condemned limb, and in its course of cure improves the general health and vigour of the frame. Holloway's ointment and pills heal all sores and ulcerations, and extirpate scrofula sores. Ulcers, bad legs, scrofulous discharges, swollen or gathered glands, contracted sinews, enlarged joints, rheumatic and gouty concretions are readily removable by the proper and persevering application of these cooling, healing, and purifying preparations, while they are as powerful as they are harmless.

Run 73 and south, now nearly 40 fms. from shaft, is in a strong ore grade, 1 ton per fathom, and likely to further improve. Four stops in back of

of San Diego's hills, where we have ascended a width of 100 yards or more, without knowing its full extent, as we have no walls as yet. On the western side the one looks as if it would hold and extend northward behind the San Diego winery on one of our eastern underlayers. The total extraction for the fortnight amounts to 100 cargas (about 15 tons), worth about 8/ 8s. a ton. I hope to show a considerable increase in the extraction within a short time. Owing to the breakage

a piece of very poor ground about 4 varas (11 ft.) in thickness against the San Diego winze. The winze has been sunk 2 varas, and the lode is looking very well, carrying good quartz on the eastern side about 2 ft. in width, with aquadag about 4 ft. wide to the west of it. We have also a back stope at the bottom south of San Diego's winze, where we have disordered a width of 3 varas of ore, without knowing its full extent, as we have no walls as yet. On the western side the ore looks as if it would hold and extend southward behind the San Diego winze.

ore looks as if it would hold and extend northward behind the San Diego winz on one of our eastern underlayers. The total extraction for the fortnight amounts to 109 cargas (about 15 tons), worth about 84. 8s. a ton. I hope to show a considerable increase in the extraction within a short time. Owing to the breakage

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The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, Nov. 2, 1877.

IRON.	£ s. d.	£ s. d.	TIN.	£ s. d.	£ s. d.
Fig. G.M.P. f.o.b., Clyde.	2 12 0	—	English, ingot, f.o.b.	75 0 0	—
" Scotch, all No. 1.	2 14 0	10 0	" bars	76 0 0	—
" Welsh, f.o.b., Wales	5 5 0	10 0	" refined	77 0 0	—
" Stafford.	5 17 6	10 0	Australian	69 10 0	70 0 0
" in Tyne or Tees	5 10 0	15 0	Banco	71 0 0	72 0 0
" Swedish, London	5 2 6	12 6	Straits	70 0 0	—
Rails, Welsh, at works	5 0 0	12 6			
Railway chairs	—	—			
Spikes	—	—			
Sheets, ingot, in London	15 0 0	9 0 0			
Plates, ship, in London	7 0 0	7 5 0			
Hoops, Staff, in London	7 10 0	8 0 0			
Nail rods, Staff, in Lon.	7 0 0	—			
STEEL.					
English, spring	16 0 0	20 0 0			
" cast	85 0 0	45 0 0			
Swedish, keg	18 0 0	—			
" fag. ham.	17 0 0	—			
LEAD.					
English, pig, common	20 0 0	20 2 6			
" L.B. nom.	20 5 0	—			
" W.B.	20 10 0	—			
" sheet and bar.	21 0 0	21 5 0			
" pipe	21 10 0	—			
" red	22 5 0	22 10 0			
" white	22 5 0	28 0 0			
" patent shot	24 10 0	—			
Spanish	19 12 6	19 15 0			
QUICKSILVER.					
Flasks of 75 lbs., ware.	7 10 0	—			
SPLITTER.					
Silesian or Rheinish	19 5 0	19 7 6			
English, Swansea	21 0 0	—			
Sheet zinc	22 10 0	24 0 0			

* At the works, 16. to 18. 6d. per box less for ordinary; 10s. per ton less for Canada; 1X 6s. per box more than 10 quoted above, and add 6s. for each X. Terns-plates 2s. per box below tin-plates of similar brands.

REMARKS.—The disposition to act cautiously is still noticeable amongst bond fide buyers; and, considering the very critical state of affairs generally, it is unquestionably the most advisable and commendable course to adopt, and we trust that it will exercise a salutary and governing influence over our markets, and in due time meet with a just and bounteous reward. Buyers cannot be too careful at a time like the present, when politics at any moment might suddenly take a very alarming turn, such, for instance, as an important success of the Russians over the Turks, which might endanger the peace of this country, for we already know that the approach of the Russians to Constantinople would be the signal for action on the part of England. Therefore, while we continue on the brink of war it would be indeed very unsafe, we might almost say madness, to launch out into any immediate transactions of a speculative character, or even to extend ordinary business beyond the bounds of discretion. It is true that the feeling of alarm occasioned by the dispatch of our fleet to Besika and our troops to Malta has subsided, nevertheless the dangers that threatened us, and caused these protective measures to be taken, still remain, but are to some extent overlooked through the receipt of more recent and exciting intelligence from the seat of war, and public attention being drawn more to the French elections. The position of affairs, however, is unaltered, and we should hereafter be involved in war other nations may follow, and a general European conflagration ensue, and no doubt the best thing that could happen for Russia, as well as for all other nations, would be that she was thoroughly defeated, and obliged to sue for peace. We are persuaded that nothing permanent or substantial can be established until the war has ceased, and the vexed question definitely disposed of. Yet this does not altogether seem to be the prevailing opinion in our market; so far as regards legitimate buyers it is so, but there exists a little clique who are apparently of a different way of thinking, and who are striving to uphold and carry on a speculative movement in tin, which we fear will have a prejudicial effect, and tend very much to unsettle the market. Nothing is more calculated to injure trade than an unnatural and ill-timed rise, but speculators seldom have much regard for consequences of that kind; they have but one object to serve—that is their own aggrandisement, and to enrich themselves, even though it be at the expense and annihilation of others. But speculation just now is particularly unfortunate, for it places the regular trader in a temporary difficulty, and he scarcely knows how to act, ordinary business is slow and limited, and on that account he cannot afford to carry out any extra outlay; and yet, on the other hand, if he abstains from purchasing he may be placed at a disadvantage hereafter by being subject to higher rates, and, perhaps, thereby prevented from securing business that would otherwise prove very acceptable.

It is an established maxim, however, that of two evils always choose the least; and, as little is to be gained by buying in excess of actual requirements, certainly nothing commensurate with the risk, it would be better almost to withdraw, and give the market up for a little while to the little clique, and let them reap the full benefit of their exploit of one another. The position which emboldened them to act has been greatly magnified, and when properly viewed dwells into microscopic dimensions, and they will probably find, to their cost and confusion, that as soon as ever their motion ceases all power of attraction will vanish, and the strong and vigorous impulse rapidly become weak and futile. We should, therefore, recommend buyers to wait, but if that course is inconvenient they ought to thoroughly examine into the whole character and influence of the market, and all its surroundings, before committing themselves to any important purchase at the enhanced rates; and not only consider the present tendencies, but calmly ponder upon future probabilities, especially these three or four weighty matters, which cannot fail to act as a serious drawback to any advance; and they are, firstly, the diminution and continued slackness of trade; secondly, the Russian war and the complications that may eventually arise with this country; and, thirdly, the enormous stocks of tin and the large realisations that will be constantly taking place if the price improve; and this is not all, for an improved value will naturally stimulate production, expedite shipments, and lessen consumption. The great necessity for reduced prices is generally understood and admitted; and trade has long been in much too delicate a state to bear violent fluctuations arising purely from speculative transactions. We must first of all see the clouds and mists of the political horizon dispelled before anything reliable can be effected, and a potent stimulus of unfailing efficacy administered to shake off the present dull and inert feeling which pervades our markets; but there is no appearance of any approach of relief, and we have no alternative, therefore, but to accommodate ourselves to circumstances, and patiently abide coming events. It may, perhaps, seem a bold assertion to make, in face of the efforts that are being put forth to work up the price of tin, that we are not at all in the stability of the market, but we see no justification for the rise, and consequently do not hesitate to condemn it. We do not deny that the market is statistically a shade stronger, but it is so very trifling yet that the change does not warrant more than the arrest of the downward tendency, and perhaps a slight improvement in rates; but the advance, in our opinion, is universally extravagant.

Speculators will not be able to draw in manufacturers or shippers, and we doubt whether the public will be induced to take part in it, so the select few are likely to have the whole advantages to themselves. The manufacturer has to consider the condition of the consumer, and to ascertain what the prospect there is of a general improvement, and the merchant has to look to the chances of a return being abroad. Now, as neither the trading or working classes, who really constitute the bulk of the population, are in a flourishing condition, it seems very improbable that a speculative rise, unsupported by any positive, decided, and material increase in the demand, or falling off of supplies, can be attended with ultimate success. It is one thing to maintain a temporary position upon superficial grounds, but quite a different matter to turn it to profitable account. There is a saying that any fool can buy, but it takes a wise man to sell; this not only applies to the ability to sell but also to know the right time to sell. Well, then, the question to decide is simply this, and it is a very simple one. Is this a favourable time for speculation? Because, if it is, go on, manifest your confidence in the market; if not, drop it at once, and cease to continue the irritation. We are sure that we have the rational and impartial part of the community with us in stating that a period of war, famine, and stagnation of trade is, above all others, the very worst time that could be selected for speculation.

COPPER.—The events of the week have in every respect minutely confirmed the statements contained in our report of last week, and the result is a partial collapse of the market—in fact, there has scarcely been any market at all, for to effect sales of any extent sellers would have had to submit to considerably lower rates. The deliveries of Chili for the last fortnight are about 1700 tons, and the stock in Liverpool and Swansea has increased to 18,474 tons, against 17,995 tons on Oct. 15; and the charters from Chili for the second half of October are valued at 2400 tons—800 tons bars and ingots, 1350 tons of furnace stuff for United Kingdom, and 250 tons bars for the Continent, and the price is again reported slightly lower in Valparaiso. The price of bars is now in a fair way of being reduced to the figure that they ought to have stood at some time back, and the delay has immensely restricted business. Holders are generally so very reluctant to make concessions until necessity compels that they are more often greater losers than they would otherwise be, and importers seem strongly impressed with the idea that because they gave more for their copper than they can realise that it is sufficient reason for not selling. Now, how very absurd is this, and yet how many lose their money by attempting to follow out this sophistry. The principal importers from time to time have all committed the same blunder, and the sacrifice has in consequence been enormous. It is perfectly ridiculous to imagine that importers of copper, more than any other people, are to be exempt from losses, and if they acted a sensible part they would always take the first loss, and sell within a reasonable time after arrival, and not keep up stocks to the detriment and depreciation of the whole market. If every importation of copper were to be sold at a profit the number of importers would vastly increase. In a very short time, but as copper is subject to fluctuations, like all other produce, sellers need not be surprised if they find their copper occasionally arriving in a bad and falling market. Our boldness

in pointing out the errors of importers may not be altogether appreciated, but we have no idea of misleading others by purposely withholding what ought to be plainly stated, or by misrepresenting facts. What if we had assured importers for months past that their position was perfectly safe, and that they had nothing to fear from lower prices, and that the demand would be fully equal to the supply, instead of plainly telling them, as we have done, that they occupied a false and dangerous position, and that the sooner they sold the better it would be for them. No holder of copper can say that he has been lulled into fancied security by our reports, and no doubt there are many who wish that they had taken our advice and sold before. We heartily wish they had, for it would have been better for all parties; but would they still hesitate on account of the loss having been increased? If so we again warn them lest that increased loss is further added to, for what better price can they expect when next week 1000 tons of Australian copper will be forced on the market for sale? The Wallaroo sale of 795 tons of cakes and ingots is advertised for the 6th inst, and this will be followed by a sale of 200 tons of Barra cake and ingots. Wallaroo has already dropped from 80s. to 75s. 10s., but Barra has scarcely undergone any change, and what little remains in second hands is extremely well held, and the Australian Company have not lowered their price below 74s., which, however, is normal. In manufactured 4 by 4 sheets sales are reported as low as 74s. 10s., but as this price is not general, and we have not heard it confirmed, it must be received with the usual caution. However, it is a price that we appear to be fast approaching, and we should not be surprised if the rumour turned out correct. Second-hand lots of tough are reported to be sold at 84s. 10s. The aggregate quantity of Chinese and Australian copper in Europe, ascertained by mail, and charters amount to 42,853 tons, against 40,533 tons on Oct. 1. By the mail from New York on Oct. 30 the market for ingots was stated to remain in the same quiet position, buyers purchasing only as their immediate necessities dictate, prices being without quotable change, sales having been effected from 17½ cents to 18 cents. Our market to-day is extremely shaky. G.O.B.'s are at 64s. 10s. up to 65s., with prompt three months.

IRON.—There has been rather more doing in merchant iron, and some sellers having booked sufficiently of Welsh bars, and are declining to sell at previous rates, and now ask 2s. 6d. to 5s. per ton extra—viz., 5s. 17s. 6d. to 6s. The change, however, as yet is unimportant, and it is doubtful whether the improvement will continue for more than a short time. Sellers are too eager, and jump at conclusions, and think because a few extra orders are placed that an immediate increase in the demand is going to take place. This, we fear, is a mistake, for nothing of the sort is likely to occur, neither can it be expected while the peace of Europe is disturbed; but there will doubtless be periods of greater activity than hitherto experienced, and the works will probably benefit by them. The present enhanced quotation is a confirmation of what we have previously stated, that the works will be ready to avail themselves of any favourable opportunity to enforce higher rates. The wisdom of such a proceeding we are inclined to question, and we would rather see the foreign houses first move ahead of us, even to the same difference as they have for a long time past been below us; we should then have a good chance of recovering some of our lost buyers, who have been driven away from this market solely on account of the prevalence of dear prices.

The present prices, however, are moderately cheap, and there is no cause for complaint on that score, and those buyers who are able to stock cannot suffer much by beginning to replenish their stores. We do not say that the minimum of the market has been reached, and that it is time to accumulate stock, but only that dealers should be well provided, and rather add to stocks than allow them to diminish, and it is a particularly favourable opportunity for all public companies to execute repairs and complete alterations, for the iron can now be obtained quickly, and at moderate prices. Wherever iron is used and likely to be wanted the present occasion is extremely favourable for securing requirements. A further reduction upon present prices cannot be of any material importance, and it is never worth while to hold out an immoderate length of time, as many have occasionally done, and missed their market altogether. There may not be much of anything to be made out of iron yet awhile, and it may, therefore, not prove to the interest of dealers to buy overmuch, but foundries and smithies certainly might be kept well supplied. Dealers can watch the little turns in the market narrowly, whereas workers have less opportunity. Any important advance in iron will not take place until peace is secured, but it will not do for regular consumers to wait for that announcement, and we should now advise steady buying for keeping up assortments. The stock of Scotch pigs in store is 165,087 tons, being an increase of 4088 tons, with warrants in circulation for 143,500 tons.

Week ending Oct. 28, 1875	Tons	13,580
Week ending Oct. 27, 1877	Tons	8,610
Decrease		4,970
Total decrease for 1877		7,842
Imports of Middlesbrough pig-iron into Grangemouth—		
Week ending Oct. 27, 1877	Tons	6,828
Week ending Oct. 28, 1875	Tons	4,619
Increase		2,209
Total increase for 1877		61,931
In blast Oct. 21, 1875		118
In blast Oct. 20, 1877		88

TIN.—This market is really attaining an enviable notoriety, for whilst others are dull and gloomy, tin is moving along gaily and briskly. Holders may well congratulate themselves that they have at last succeeded in finding buyers who are willing to relieve them of their burdens and give them an advanced price in exchange for their tin. A good many sales are reported at improving prices, and sellers say that during this month and next the market is to be very much better. The arrivals are to be small, and we are promised a great reduction in stocks by the end of the month, and very small shipments are to be made; so that come the end of December statistics will have undergone an extraordinary metamorphosis. What a surprising change is this all at once. From a downward market to an upward market. From heavy stocks to reduced stocks. From large shipments to small shipments. From a limited demand to an excessive demand—all most happily combined in a moment of time to dazzle the sight and to elevate the spirits; to afford excitement and drive away care, and fill the pockets of speculators, and to empty those of consumers. Sellers, of course, have made due allowance, and have taken into consideration the effect which such a wonderful change would naturally produce. The probabilities of tin coming forward and of tin coming out, the eagerness of shippers and the reluctance of buyers, the lessened enquiry upon the excessive delivery—yes, everything provided against. Nothing overlooked. The time (by sellers' indicator) is now on the strike for a rise, and the Cornishman may now safely go on investing his little all in his pet metal, and he will probably relish his bowl of nohea none the less if the price should advance so high as to prevent that selfish little piece of extravagance and anticipated luxury being realised of having his tea delivered in brilliantly polished tin-lined chests, instead of that nasty pious stuff which the barbarous and pig headed Chinaman clings to as pertinaciously as he does and ever will to L.B. The stock of foreign tin in London and Holland, ascertained by mail and wire, amounted to 15,897 tons on Oct. 1, and was reduced on Nov. 1 to 15,405 tons, being a difference of 492 tons; the actual stock, however, in London on Oct. 1 amounted to 9271 tons, and on Nov. 1 9233 tons, showing a diminution of 8 tons.

LEAD.—Quiet, but slightly drooping. The Cornish rumour of the substitution of tin for lead in the China and Indian tea-chests may have had something to do with it, buyers not unlikely being frightened off by the startling announcement. The favourite L.B. brand for their markets is not yet seriously indisposed.

QUICKSILVER.—While California advised no change this week, the demand on this side has been poor, inducing importers to reduce their price to 7s. 10s., and latterly to 7s. 7s. 6d., at which more enquiry has sprung up at the close.

THE IRON TRADE.—(Griffiths's Weekly Report).—Friday Evening. We have no change to report in G.M.B. Scotch pig-iron, the price on the Glasgow Exchange this afternoon at the close of the market is 52s., about 15d. per ton below the closing price last week. We quote makers' No. 1: Gartsherrie, 60s.; Coltness, 65s. 6d.; Cambuslang, 65s.; Langlands, 62s. 6d.; Summerlee, 59s. 6d.; Monkland, 55s. 6d.; Glasgow, 59s.; Glasgow, 59s.; Scott's, 61s. 6d. f.o.b. Leith; Kennel, 55s. 6d., f.o.b. Bo'ness. There is really no change in our markets this week in regard to prices. The part of the trade most buoyant over the last three months, and in which heavy quantities of metal are consumed, has been boat-plates, angles, and bars, made at the works on the Tees. We regret to say that this trade has now dwindled into insignificance. There are no new orders coming out for boat-plates, and with regard to angles and common bars, we must confess that the Belgian houses are cutting out Middlesbrough in prices, and are taking the whole of the business. What is more disheartening, the Belgian ironmasters, or the Belgian merchants, are consigning very large quantities of bars, angles, and nail-roads to China, India, Japan, and the Straits. This has so deranged the business of our own London merchants as to close their operations for these markets in common iron for the present. This state of things is of necessity telling seriously on our industrious friends on the Tees.

At the present price of Belgium iron the Tees works can no longer compete with them. The demand for Staffordshire sheet-iron of all kinds keeps up; prices unchanged. Welsh bars are flat, and prices weak, with a small business. Boiler plates, of the Sleshill, Summerhill, and Monmouth brands, are in moderate demand; and the marked bars of B.B.H., Philip Williams and Sons, of Wednesbury Oak, and the British Iron Company, John Bagnall and Sons, E. Wright and Sons, and the Minerva are the sort just now required, and being bought by our engineers and the railway companies. All these buyers seem more disposed to stock these qualities just now. We have nothing to report in rails; prices are unstable for both kinds.

Tin plates are weaker, and cokes are being pressed on the market at lower rates than ever. Pig-iron on West Coast is firmer, and worth more money all round. The Middlesbrough market is weaker, and if the Scotch ironmasters blow in more furnaces there is nothing for it but lower prices or blowing out furnaces on the Tees. The market at Glasgow is giving way by small degrees; future course of prices, however, on this Exchange will depend upon the ironmasters' resolution to enter into a new arrangement in regard to the one which will soon cease by the effluxion of time. The colliers' and miners' wages are now settled in the Black Country. Metals are about the same; copper is weaker; the late spurt in tin is maintained, and operators say there is an advance of 30s. this week in this metal.

COPPER.—Messrs. RICHARDSON AND CO., Nov. 1: The stocks of Chili produce remaining unsold at Swansea, on Oct. 1 were—Ore, 2584 tons; regulus, 9254 tons; copper, 2194 tons; and barilla, 10 tons. Of ore, 1450 tons arrived during the month, and 1280 tons were privately sold. The present stocks are—Chili, 2754 tons; Cape, 1093 tons; Cuba precipitate, 69 tons; Portuguese, 899 tons; Spanish, 360 tons; Betts Cove, 8177 tons; Union, 870 tons; Dutch, 205 tons; British, 223 tons—total unsold ore at Swansea, 14,552 tons. Of regulus, 1554 tons were sold, reducing the stock to 4700 tons. Of copper, 33 tons were sold, the present stock being 2571 tons. The barilla remained unchanged. These totals represent about 4100 tons of fine copper, and 1000 tons of regulus. The following is the material reported during the past month—ore fetching 12s. 16d. to 12s. 3d. per unit, the greater portion at the latter. Regulus realised 12s. 6d. A sale of Wal-

laroo is announced to take place on Nov. 6, when 795 tons will be offered, of which 655 tons are in cakes, 140 tons in ingots, and about 300 tons Barra, if the whole are sold no more will be offered for sale until Jan. 31, 1878.

The MINING SHARE MARKET has been particularly active. Tin shares, many of which have had a great rise during the week, the demand seems to continue in anticipation of a further advance in the standard for ore. In some mines the rise has exceeded cent. per cent. within the last few weeks; and the reaction which has set in is no more than what we have long been expecting, and will doubtless extend to lead and other mines, many of which are selling far below their legitimate value.

The settlement of the fortnightly account took place during the week, and was heavier than usual.

The mines chiefly dealt in have been Carn Brea, Dolcoath, Croft, Cook's Kitchen, Basset, Parys Mountain, Rookhope, Leadhills, South Frances, Tankerville, Van, East Van, West Tolgu, Gravelly, Great Laxey, North Laxey, and a few others.

TIN MINES.—Although there has not been any further advance in the Cornish standard for ore, smelters are giving beyond the official price, and as the stocks of metal on hand have decreased during the month of October something like 550 tons, it is probable that an official advance will shortly take place, and it has been anticipated of this that shares have advanced during the week. Carn Brea have reached 4s. to 5s.—a rise of 30s. per share. Dolcoath, 3s. to 4s.; Tincroft, 17s. to 18s.; Cook's Kitchen, 2s. to 2½s.; Pool, 9s. to 10s.; Wheal Basset, 15s. to 17s. Wheal Uny, 20s. to 22s. at the quarterly meeting the accounts showed a loss of 192s., and a debit balance of 1469s. A call of 4s. per share (81s.) was made. The mine sold 96 tons of tin for 3743s., and looks well, and shows the price of tin rise to 50s. per ton good profits would result. Parys accounts show a loss of 56s. on four months, and a debit balance of 225s. The tin sold to Oct. 29 (63 tons) realised 22s. The costs are charged up to July 7. Bluehills showed a debit balance of 1234s., and a call of 2s. 6d. per share (420s.) was made. Costs charged to Aug. 4. South Frances have been enquired for 2s. to 3s.

Lovell, 2 to 2½; the lode in Henman's shaft is reported to be 200s. per fathom for its length. This fine discovery has been made by sinking an old and abandoned shaft. Formerly the shares in this mine were selling at the price of 10s. each; they then gradually dropped to a few shillings, at which price they stood a few weeks ago, and are now in demand at 2s. Penarth, 2s. to 2½s.; South Condurrow, 9s. to 9½s.; West Basset, 35s. to 40s.; Wheal Grenville, 3s. to 4s.; Wheal Kitty (St. Agnes), 1½s. to 2s.; Wheal Pevor, 5s. to 6s. Wheal Jane accounts, as presented to the meeting, showed a profit on four months working of 12s. 12s., but the ore were only charged up to the end of July. The banker's charge has been 400s. In 12 months the mine had sold 130 tons of tin, 7093s., or an average price of 39s. 8s. With a better price for tin is said the mine could do well.

COPPER MINES.—At the Cornish ticketing on Thursday standard for ore declined 17s.; the average price for ore realised was 3s. 11s. per ton; tons sold, 1483; amount of money realised 5291s. 12s. The dealings in copper shares have been rather limited and prices not quite so firm. Devon Great Consols, 2½s. to 3s.; B. Ford United, 2s. 6d. to 2s. 7s. 6d.; East Caradon, 15s. to 16s.; G. W. 2s. 6d. to 2s. 7s. 6d.; Marke Valley, 12s. 6d. to 15s.; Prince of Wales, 2s. 6d. to 2s. 7s. 6d.; West Seton, 18s. to 20s. West Tolgu have been more freely offered, and have declined to 69s. 7s. Tolgu Consols 5s. to 5½s. Parys Mountain, 10s. to 12s. 6d.; the prospects at the cross-cut continue to improve, and good stones of copper are being broken. Wheal Crebor, 1½s. to 2s.; the lode in the 120 is now 12s. 12s. per fathom; the stone in the back of the 120 is worth 15s. fathom. Gunnislake (Clitters). At the four-monthly meeting accounts showed a loss of 404s., owing to the fall in copper. Sales effected realised 2564s., and there remains a balance in hand of 635s. The report of the agent is encouraging, but it is said that although the copper sales were 35 tons more than in the previous five months, the money realised was 747s. 15s. 7d. less.

LEAD is firmer, if we may judge from the improved prices for ore, but the business in lead mines has not been large, and having been for the time greater attraction in tin mines for the speculators for a rise. Roman Gravelly, 7½s. to 8s.; no particular change in the report, and the agent considers, on the whole, the mine looking well for the future. Tankerville, 4s. to 5s.; Great Laxey 20s. to 21s. North Laxey shares are flat at 10s. to 12s. 6d. Glen 15s. to 20s.; the directors here have made a call of 5s. per share, the contributing shares. Those quoted and dealt in on the market are, of course, 4s. fully paid up. The mine is looking better in 25, and the lode in the shaft is 6 ft. wide. Van, 32 to 34. East 3 to 3½; there is a slight improvement here in the bottom of shaft. Gorsedd and Merilyn, 5½s. to 6s.; the sale of lead on Thursday will be 50 tons. Penarth, 5s. to 5½s.; Great Holway, 5s. to 6s.; dauntant, 4s. to 4½s.; Glyn, 8s. to 8½s.; Herodfoot, 6s. to 6½s.; Laxey 17s. 6d. to 22s. 6d.; Leadhills, 4s. to 5s.; Larwest, 2s. to 2½s.; Parys Bridge, 2s. to 2½s.; West Pateley, 1½s. to 2s.; Pandora, 17s. 6d. to 22s. 6d.; Temple, 1½s. to 2s.; Rookhope, 20s. to 22s. 6d.; South Roman Gravelly, 7s. 6d. to 12s. 6d.; West Chiverton, 13s. to 14s.; Caron, 2s. to 2½s.; Grogwinion, 3s. to 3½s.; Red Rock, 1½s. to 2s.; South Cwmystwl, 3s. to 3½s.; Saint Harmon, 2s. to 3s.; Wye Valley, 2s. to 3s.; West Wye Valley 3s. to 3½s.

FOREIGN MINES.—Argentine, 2½s. to 3s.; Eberhardt and A. have fallen from 8s. to 6s. 7s.; Flagstaff, 2½s. to 3s.; Fronton and B. 3s. to 3½s.; Javali, 6s. to 8s.; New Zealand Kapanga, 1½s. to 1½s.; Quebrada, 1½s. to 2s.; Richmond, 8s. to 8½s.; Blue Tent, 3s. to 3½s.; Chili, 2s. to 3s.; Hualfala, 5s. to 6s.

The Market for Mine Shares on the Stock Exchange has maintained the increased activity noticed last week, and in many cases very satisfactory advances have been established. The conclusions drawn from the statistics for the month by those competent to pronounce an opinion as to the prospects of the mineral trades, so far as they affect the prices to be paid to the miners, their ore, is decidedly favourable, and the decline of the standard, on Thursday, is accounted for by the character of the being somewhat below the average rather than from increased weakness on the market. How far these views are justified by figures every reader is well able to judge for himself. There is, however, the undisputed fact that tin has risen 3s. per ton during the month, and the stocks of copper on hand, including that chartered on Nov. 1, although some 3000 tons higher than the corresponding date of last year, have declined in the month, at least have not increased. The opinion of coming improvement is also apparent, since the stocks unsold at Swansea have fallen from 2600 to 14,550, or (say) 6000 tons of fine. Of this over 3000 belongs to one Newfoundland mine alone—the Betts Cove—and unlikely that so large a quantity would be held off the market, such a young mine unless some good advice had been taken, and prices are no lower—indeed some sales have been made at advance—and the quotations for both zinc and spelter have been maintained.

New Zealand Kapanga, 1½s. to 1½s.; at the meeting to-day the lode for creating 2000 new 15 per cent. preference shares was formed. Cape Copper, 3s. to 3½s.; with regard to the trial at Captain Tonkin writes that at Nababep the productive ground passed through is about 8 ft. wide; they intend shortly to stop. At the trial mines west of Ookiep the level from the bottom of the shaft produced some very good ore; but the most productive part is in the lower part of the driving, consequently they decided to deepen the shaft.

St. John del Rey, 32s. to 35s.; the latest telegram received from the mines, dated Rio de Janeiro, Monday, states that the profit for the second division (11 days) of October was 13,000, of which value of 5087s., the ley of the ore being 87 per ton. Don P. ½s. to 1s.; the telegram received on Monday, dated Rio, Oct. 27, states that they have resumed drawing ore from the bottom of the Almadá and Tiritó, ½s. to 1s.; the telegram from the mines given September profit at \$500, and states that the tunnel is open forking the Mina Grande and 42 (Tiritó). San Pedro, 1½s. to 1½s.

of what will be the returns when the output becomes increased; the new pit is down 318 yards. Bolkow, Vaughan, have been dealt in, and close at 52 to 53. The new steelworks of this company are probably the largest in the world, producing over 1500 tons of steel rails per week; they have proved to be a great success. Thorpe's Gower shares close at 2½; New Sharncliffe at 3¼ to 3½; Cakemore at 2 to 2½; Newport Abercrombie at 4 to 4½; and Cardiff and Swansea at 1 to 1½.

Mr. Alfred W. Dunn has joined the board of the London and Lancashire Fire Insurance Company.

The directors of the Bank of New Zealand have declared a dividend and bonus for the half-year ended Sept. 30 last equal to 15 per cent. per annum, and, in addition, increased the reserve by 25,000l. to 300,000l.

LYTTEL'S CAST STEEL COMPANY (Limited).—A petition for winding-up this company by the Chancery Division of the High Court of Justice has been presented to Her Majesty's High Court of Justice by Mr. George Clarence Tanner, of The Thrupe, near Stroud, a creditor of the company.

With this week's Journal a SUPPLEMENTAL SHEET is given, which contains: Original Correspondence: The Mineral Traffic and Railway Amalgamations; Mining in the East—No. XXI.; the Eureka and Richmond Decision; Richmond Mining Company; the Richmond Mine; the Javali Mine; Rock-Boring Machinery; Rock-Drilling Engines; Colliery Explosions, and their Prevention (J. D. Shakespear); the Blantyre Explosion (Lord Kinnaird); Colliery Accidents, and their Prevention; Safety in Coal Mining; Meteorology and Colliery Explosions (W. Fairley); Sulphate of Barytes; the Metal Trades; the Tin Trade (J. Fletcher Pagen); the Rise in Tin (R. Symonds); Chemical Reduction of Minerals; Gossan Deposits, &c. (N. Vincent); Mining in North Devon; Manganiferous Deposits of Devon and Cornwall; Notes from the West; Cornwall—Abolition of Railway Schemes, &c.; Neglected Securities; Cardiganshire Mines (A. Francis); Lead Mining in Keswick District, Cumberland; South Condurow, and Wheel Grenville (P. Provis); Cathedral Mine, New Charlotte, &c.; Mining in Montgomeryshire; China-Clay and China-Stone—the Rothschilderberger Water Adit—Registration of New Companies—Patent Matters.

TANKERVILLE.—This mine is looking better, particularly in the bottom levels.

WEST TANKERVILLE.—Capt. Waters writes—"I am glad to tell you that the mine is looking better than I have seen it for 12 months past, and I can see no difficulty in keeping up the 35 tons a month; should the 86 improve, and I think it will, we ought soon to have 40 tons per month."

SOUTH DARREN.—The auxiliary steam-engine has been set to work. The old wheel is taken down, and the new one is being erected. In the meantime the returns exceed the costs, and before long are likely to do so considerably. The sampling for the past month is 20 tons of rich lead ore and 25 tons of copper ore.

PRINCE OF WALES.—It will be remembered by the shareholders in this mine that when the small deposit of silver was cut on the Wheel Brothers lode the shares went up to 3l. 10s. each, and over 1000l. worth of silver was raised. Attention has again been lately directed to the precious metal, owing to important discoveries in the adjoining mine, which in consequence is selling at a valuation of over 100,000l. It is notorious that this particular district has produced silver on a very large scale, and at any moment a discovery of great value may take place in Prince of Wales. Samples of the lode have given on assay nearly 200 ozs. of silver to the ton; but even richer stones of ore have been lately broken. The casing of Vigor's shaft will soon be completed, and it is hoped that the shallow and deep adits will be completed in about a month. There is no better speculation in the market than this at the present low price of shares, and it would surprise no one acquainted with the nature of the work now in hand to see the shares take a sudden and important rise. It is rumoured that offers to purchase the property have been lately made.

PANDORA.—There is a further improvement in the 33 cross-cut east, on new lode. The agent thinks they are now entering the main part of the lode, which is already worth 1 ton of lead and 1 ton of blende per fathom; a strong ore lode. An accident to the crusher has retarded the dressing of ore, but this will be repaired this week. The agent states: "We are so filled with stuff underground that I scarcely know what to do with it. We have enough lead at surface to make up a lot of 60 tons of ore if we can dress it in time for the sampling."

GREAT HOLWAY.—Roskell's shaft will be in full course of sinking in a very short time, and the management contemplate carrying it down for about 40 yards before driving out east and west, thus a cover will be obtained for stopes for an immense distance on the course of the vein. The character of the lode at this point is very strong, and it is the opinion of practical authorities that great returns of lead ore will be made from this portion of the property without the necessity of any great outlay on capital account; again, the deepening of this shaft will ease the pumps at Eytton's shaft, and economize fuel. It will, therefore, be seen that at no distant date tributaries can be employed at Eytton's, whilst at several other points in this extensive grant operations will be so conducted as to prevent wearisome delay, which too frequently takes place in mining undertakings. Allotment letters have been posted, and there seems every reason to expect that this great property will at last secure a spirited development, which can hardly fail to open one of the richest lead mines in North Wales.

TIN MINING.—The Lovell Mine has a splendid course of ore in the shaft. Mining authorities look for a great discovery also at East Lovell, shares in which are selling at about 25s., and may any day see a rise of pounds per share.

PARRACOMBE (North Devon).—A second trial shaft has been sunk on No. 1 lode, about 40 fathoms west of the first opening, where the discovery of the ore was made. The lode presents precisely the same appearance, and preparations are being made for driving an adit level at once to cut it. After this has been done the same cross-cut will be continued on for a distance of about 70 fathoms to intersect five other well-known lodes which run through this extensive property. From the back of No. 2 lode some splendid looking gossan and stones of silver-lead ore have been broken during the past week. The set has been inspected by several mining authorities, who all agree that the driving of the adit level so as to cut all these lodes is one of the grandest mining speculations of the day. An average sample of the ore broken only a few feet from the surface has just been assayed, and its value shown to be 15½ in 20 for lead, and 13½ ozs. of silver to the ton. A capital stream of water (the rushing Heddon) runs through the entire property, and there is every advantage for the erection of machinery for pumping, crushing, and dressing the ore by water power alone.

WHEEL PRETOR.—The returns from this mine are now fully 30 tons of tin per month, which gives a monthly profit of between 200l. and 300l. A good and substantial dividend will no doubt be given at the account after next, even if tin should not advance beyond the present prices. We congratulate the shareholders on the plucky way they have stuck to the mine, and are pleased to hear that most of the original holders still retain their interest in the property, who have paid no less than 7l. 11s. per share in calls in developing and bringing the mine into its present state of prosperity.

DUNN'S ROCK BORING MACHINERY.—A few weeks ago we referred in this column to the serious and deserved attention which the principal mining companies were giving to the subject of rock drilling by machinery, and we alluded to the successful working of Dunn's machine at the Bardon Hill Quarries in Leicestershire, where it has been in operation for nearly a year. The question as to which is the best machine to adopt is being much discussed, and the companies are naturally hesitating and enquiring before making a selection. We think it desirable, therefore, to give any practical information in our power with a view to promote so important an object for the mining interest. The proprietors of the above quarries have had both Dunn's and Ingersoll's machines at work for a considerable time, and in a letter to Mr. Dunn they write, "We give you the decided preference. We may add that the Bardon granite is one of the hardest known rocks in this country, and we feel assured that anyone giving your drill a trial will be pleased with the result." The Mountsorrel Granite Company also write to Mr. Dunn, "We are glad to be able to state that after many months trial in our hard and jointy granite your drill has proved a most decided success. For several weeks, during which we kept a careful record, it averaged 2 ft. 9 in. per hour of round hole 3-in. diameter very cleanly cut, and on one occasion drilled 21 ft. 5 in. of

the same size in exactly eight hours. When placed right for the hole a boy can manage it, and it drills horizontal holes as well as vertical or inclined." A great advantage of this drill is that it is very simple, not being subject to going out of order, and it is easily repaired by replacing parts that may have worn out. A lad about 16 or 17 years has been in charge of the machine at work at Bardon Hill. One gentleman in South Wales has so satisfied himself of its practical efficiency that he has ordered eight of Dunn's machines in the last three months, and we understand that the directors of the Derwent Lead Mining Company have arranged for the immediate erection of several at their mines.

ZINC ORES.

ARMAND FALLIZE,
INGENIEUR-CIVIL, A LIEGE (BELGIUM)
BUYER

1.—CARBONATED AND OXYDED ZINC ORES (CALAMINE, &c.)
2.—ZINC AND LEAD ORES MIXED TOGETHER, BUT DRESSABLE KINDS ONLY

CAPPER PASS AND SON, BRISTOL
PURCHASERS OF

LEAD ASHES, LEAD SLAGS, SULPHATE OF LEAD, HARD LEAD, BRASS SLAGS AND ASHES, COPPER REGULUS, MATTE, SCORIA, TIN ASHES, TERNE ASHES, &c., and MIXED ORES or REFUSE, containing LEAD, COPPER, TIN, or ANTIMONY.

GEO. G. BLACKWELL,
5, CHAPEL STREET, LIVERPOOL,
PURCHASER OF

MANGANESE, ARSENIC, FLUOR-SPAR, WOLFRAM, BLENDE, CALAMINE, CARBONATE AND SULPHATE OF BARYTES, ANTIMONY ORE, CHROME ORE, MAGNESITE, EMERY STONE, PUMICE STONE, OCHRES AND UMERS, CHINA CLAY, LEAD ORE FOR POTTERS, TALC, &c.

Exhibition Prize Medal—New South Wales, 1877.

AUSTRALIAN TIN—"KANGAROO" BRAND.

Having recently succeeded in REFINING the AUSTRALIAN TIN to the HIGHEST PITCH OF PURITY, the Undersigned is prepared to SUPPLY an article equal to the BEST REFINED ENGLISH.

The uniform assay of the "Kangaroo" brand ranges from 99.70 to 99.90 pure tin. An exhaustive comparative trial of various brands of Australian tin (see annexed report) have proved the

"KANGAROO" BRAND
To be superior to all other Australian tin, and equal to best refined English.

COPIES OF REPORT.

"Sydney Galvanising Works, Sydney, Oct. 1, 1875."

"DEAR SIR,—I have much pleasure in stating that I have found the tin smelted at the 'Kangaroo' Tin Smelting Works superior to any other Australian smelted tin I have used in my business up to the present time, and in no way inferior but quite equal to the celebrated 'Lamb and Flag' tin. This opinion has been arrived at after several carefully executed practical tests, as well as from metallurgical assays."

"I am, dear Sir, yours faithfully,
(Signed) S. ZOLLNER."

Messrs. JOHNSON, MATTHEY, AND CO., the well-known Assayers, report on 24th December, 1875, on a shipment ex Durham, 25 tons of "KANGAROO" TIN, 99.95 per cent. pure tin.

In ordering the "Kangaroo" brand the trade will henceforth ensure uniformity of quality, excellence of texture, and absolute freedom from impurity.

"KANGAROO" TIN SMELTING WORKS.
Sydney, September, 1877. S. L. BENSUSAN.

BURRA BURRA COPPER—BRAND P.C.C.

Messrs. FRY, JAMES, AND CO. beg to announce that their NEXT SALE will take place at the BAL TIC SALE ROOM, on TUESDAY, 6th November, at Two o'clock, when they will offer TWO HUNDRED TONS, consisting of ONE HUNDRED AND FORTY TONS IN CAKES and SIXTY TONS IN INGOTS.

For catalogues, apply to FRY, JAMES, and Co., Brokers, Gresham House, London, E.C.

ARSENIC TENDERS.

THE DIRECTORS of the DEVON GREAT CONSOLS COMPANY (LIMITED) hereby give notice that they are prepared to RECEIVE TENDERS (in writing) for their make of WHITE POWDERED ARSENIC in the year 1878, the conditions of which may be had on application to the Secretary.

By order of the Board,
ALEX. ALLEN, Secretary.
134, Gresham House, Old Broad-street, London,
1st November, 1877.

THE RISE IN TIN SHARES AND INVESTMENTS GENERALLY.

MR. JOHN B. REYNOLDS should be consulted as to the PRESENT AND FUTURE PROSPECTS of the TIN TRADE. All communications considered as strictly private. Reliable advice given on all investments. Telegrams promptly attended to.

JOHN B. REYNOLDS, Stock and Share Dealer, 70 and 71, Bishopsgate-street Within, London, E.C.

Bankers: City Bank—Established 20 Years.

MR. W. MARLBOROUGH, STOCK AND SHARE DEALER,
29, BISHOPSGATE STREET, LONDON, E.C. (Established 21 Years), can sell the following SHARES, at prices annexed:—

10 Argentine, £2 12s. 6d.	30 Goredale and Merlyn, £5 11s. 3d.	60 Parys Mount, 10s. 9d.
10 Aberdunant, £2 12s. 6d.	20 Glenroy, 16s. 6d.	25 Penrithal, 6s. 6d.
10 Alltarn, £2 12s. 6d.	10 Haulfahall, £5 11s. 3d.	60 Port Phillip, 10s. 3d.
10 Bampfyde, 6s. 3s.	10 Haulfahall, £5 11s. 3d.	25 Rockhope, 21s. 3d.
10 Bodidris, £2 12s. 6d.	30 Last Chance, 18s. 9d.	10 Richmond, £8 2s. 6d.
10 Combarnet, 5s. 9d.	15 Llanrwst, £5 11s. 3d.	10 Roman Grav., £5 11s. 3d.
25 Condes of Chilly, £2 12s. 6d.	20 Leadhills, £5 11s. 3d.	50 S. Roman Grav., 10s.
5 Cargoll, £2 12s. 6d.	20 N. Quebrada, £2 12s. 6d.	20 Santa Barbara, £1 1s.
20 Colorado, £1 17s. 6d.	40 Nth. Laxey, 13s. 6d.	15 Tankerville, £5 3s. 6d.
70 Chontales, 7s. 6d.	20 New Zealand Kap., £1 7s. 6d.	100 Teocoma, 6s. 6d.
25 Chicaco, £1 15s.	30 Marko Valley, 16s. 9d.	50 Van Consoles, 10s.
25 East Lovell, £1 9s. 6d.	10 East Van, £2 12s. 6d.	10 W. Craven Moor, £8 10s.
10 East Van, £2 12s. 6d.	30 Mynydd Gerdau, £1 12s. 6d.	15 W. Wye Valley, £5 11s. 3d.
25 Devon Consols, £2 12s. 6d.	10 Fernant, £5 11s. 3d.	30 West Pateley Bridge, £1 12s. 6d.
20 Derwent, £2 3s. 9d.	10 Pestarena, 5s. 6d.	50 W. Tankerville, 16s. 9d.
20 Eberhardt, £7 5s.	30 Prince of Wales, 5s. 6d.	40 W. Godolphin, £1 14s.
25 East Caradon, 17s. 6d.	30 Pandora, 17s. 6d.	50 Wh. Crebor, 25s., c.p.
75 Exchequer, 6s.	100 Plynlimmon, 6s.	70 York Peninsula, 5s. 6d.
40 Frontino, £2 17s. 6d.	10 Pateley Bridge, £2 12s. 6d.	25 ditto pref., 18s. 9d.
40 Flagstaff, £2 13s.		

Shares bought and sold at net prices. Telegrams promptly attended to.

V A N L E A D M I N E .
Particulars of this very valuable Mine will be found in the SIXTH EDITION of Mr. MURCHISON'S work on BRITISH LEAD MINES, published THIS DAY, with Maps, &c., price 2s. 6d. The Prefaces to the Six Editions price 1s.

8, AUSTINFRIARS, LONDON.

TANKERVILLE.
ROMAN GRAVELS.
GREAT LAXEY.
MINERA.
LEADHILLS.
DERWENT.

ROOKHOPE.
NORTH LAXEY.
GLENROY.
WEST TANKERVILLE.
PANDORA.

Full particulars of the above and other valuable LEAD MINES will be found in the SIXTH EDITION of Mr. MURCHISON'S work on BRITISH LEAD MINES, published THIS DAY, with Maps, &c., 2s. 6d. The Prefaces to the Six Editions, 1s.

8, AUSTINFRIARS, LONDON.

"Contains a good deal of information that may be useful at present. Mr. Murchison's theory is briefly that on the average British Lead Mines have less of the lottery element in them than any others, and the figures he gives seem to support that view; at all events, those interested in this industry will find his facts and observations worth reading."—Times.

"Calculated to be a great benefit to investors."—Mining Journal.

"We have great pleasure in recommending his treatise."—Morning Post.

"We invite capitalists to look into this means of investment."—Money Mark Review.

Notices to Correspondents.

* * Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be kept on receipt; it then forms an accumulating useful work of reference.

EXPLOSIVES.—"Mercator" (Grosvener square).—There does not appear to have been any book published treating of explosives generally; but an elaborate paper containing much information on the subject was read before the Society of Engineers by Mr. P. F. Nurse, the secretary, and appears in the Transactions of the Society. Mowbray's "Tri Nitroglycerine," published by Van Nostrand, of New York, contains much valuable matter concerning nitroglycerine compounds, and many small pamphlets have been published describing special explosives.

RAILWAY TUNNELS.—Standedge (London and North-Western) tunnel is the longest in England, being 3½ miles in length; Woodhead tunnel (Manchester, Sheffield, and Lincolnshire), 3 miles and 20 yards; Little Barough (Lancashire and Yorkshire), 2½ miles. These are the three longest tunnels in England. Box tunnel is a little over 2 miles.

COPPER EXTRACTING PROCESSES.—"J. M." (West Bromwich).—No copies of Mr. Bensons's lecture are obtainable in this country, except by order. Messrs. Tribner and Co., of Ludgate Hill, will, no doubt, furnish "J. M." with full information as to price, &c., if he writes to them.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

Received.—"Shareholder" (Trebeigh Consols) had better write to the Purser.—The letter of "A Victim" (Edinburgh) in the Central Swedish Iron and Steel Company is too personal for publication—"W. G."—"Scotus" (Oct. 31).—"Be in Time" (Brighton).—"Constant Reader" (York).—"Shareholder" (Wheat Greenville).

THE MINING JOURNAL.

Railway and Commercial Gazette.

LONDON, NOVEMBER 3, 1877.

THE BLANTYRE COLLIERY EXPLOSION.

MR. MACDONALD, M.P.

Whilst mining engineers, Government Inspectors, and the rank and file of those connected with the colliery at Blantyre were busily engaged in the most praiseworthy efforts to clear the shaft and the workings, so as to recover the bodies of the poor fellows killed by the explosion, Mr. MACDONALD, M.P., true to his reputation, considered the time and the occasion suitable for delivering one of those fiery denunciations against colliery owners, managers, and everyone placed in power for the carrying on of ordinary mining operations. On the surface he was bold in speech, but discreet in valour, for he does not appear to have descended the colliery himself, as a practical miner might have been expected to do, although many of the men were clamouring to be allowed to do so; but as an excuse for himself he stated that he deeply sympathised with the object of the men—the recovery of the bodies in the pit—but he had visited for the last 20 years all the great mining disasters, and he was, therefore, strongly of opinion that the miners should wait patiently, and not risk their lives in order to recover the dead. The advice we fully admit was well timed and good, but it also shows how careful Mr. MACDONALD is not to expose himself to the slightest danger, whilst at the same time taking credit for being a wise counsellor. In his address to the men in illustrating the necessity for a policy of caution he remarked that on the occasion of the Oaks Colliery explosion 20 men volunteered and descended for the purpose of recovering the dead bodies, and all of them perished for their bravery. But it cannot be said of Mr. MACDONALD that he at any of the great explosions ever volunteered to go down where there was any actual danger, such as at the Oaks, Lund Hill, Hartley, and many other places. Keeping aloof from the points of danger he has generally been found after the occurrence has taken place denouncing and threatening all persons who were in any way connected with the colliery where an explosion has led to a loss of life. In the case of the disaster at Blantyre he appears to have been more than usually rapid, virulent, and inconsistent, and displayed every quality but what might have been expected from a legislator, even of the very lowest capacity. Without waiting for the inquiry or the evidence of any person connected with the colliery, without consideration, and at a time when those he addressed were highly excited, he denounced in terms such as a maniac might have used when raised to a high pitch of frenzy every official connected with the colliery, the owners, and the Government Inspector of Mines. He said he spoke "advisedly that the grossest neglect had been manifested in the inspection of the mines in that district." What the neglect was he does not appear to have informed his hearers; in all probability because he was not acquainted with any. As Mr. MACDONALD, however, evidently alluded to some supposed *laches* on the part of the Government Inspectors of Mines for the district it is only right to state that it is no part of their duties to visit and examine the various collieries with which they are officially connected. To do so would take Mr. MOORE and his colleague all their time, for in the Eastern division of Scotland there are no less than 367 collieries. Inspectors have power to visit and examine all collieries to see that the provisions of the Act are carried out, with respect to the ventilation, and the safety of the persons employed in or about them, or in the event of their attention being called to any neglect on the part of the officials connected with a mine, it would be their duty to inquire into it.

In what way then Mr. MOORE, and his assistant, Mr. ROBSON, have been guilty of any dereliction of duty we are unable to discover, for no complaints so far have been made against them, excepting, indeed, what has been given in a wholesale manner by Mr. MACDONALD. But it is provided that in a mine in which inflammable gas has been found within the preceding 12 months, that part of the mine shall be inspected before the men commenced working by a properly appointed person. This, however, cannot, we should say, be the inspection to which the member for Stafford alluded. Waxing warm on such a congenial occasion, Mr. MACDONALD stated that there had been cursed neglect, and that neglect would be proclaimed throughout the kingdom. Should such really be the case the public, without any aid from Mr. MACDONALD, will be made acquainted with it through the medium of the Press, the impartiality of which in accuracy is only equalled by the partiality of those who assume the right to speak in the name of the working miners of the kingdom, but who never work themselves, or volunteer for posts of danger in connection with colliery accidents, but leave such honours to their followers.

But lest there should be the slightest misapprehension as to his views of such catastrophes as that at Blantyre, Mr. MACDONALD expressed a hope that the country would not rest contented until every such disaster was declared to be murder, and that the authors of the crime should be tried for murder. A more monstrous and undefensible proposition could not be well conceived, and were it possible to carry it out we have no hesitation in saying that the probability is that some of Mr. MACDONALD's supporters would be the first to suffer, for we have not unfrequently to record cases where miners have been sent to prison for tampering with safety-lamps, lighting matches and smoking in mines in which gas was known to exist, and there is very little doubt that from such causes, and the use of gunpowder, most of the great colliery accidents have resulted. Unfortunately, however, in scarcely any one instance have our ablest men been able to trace the actual perpetration of an offence leading to an explosion to any person or persons, as in all probability they would be the first to lose their lives as the penalty for their neglect or thoughtlessness. But this is not the class of persons that Mr. MACDONALD would evidently like to see tried for murder, but the owners of collieries, who are so superior to himself in education, gentlemanly conduct, and social position, and these qualities are always sufficient to excite the envy as well as the hatred of the mean and paltry-minded.

But what all impartial persons will without hesitation condemn in Mr. MACDONALD's recent utterances is the recklessness with which he has brought forward the most serious charges against cer-

tain individuals, without any proof whatever of their guilt; and this he admits, for in his address he said—"Anyone who had evidence to give on the subject should communicate with him, and he would take means that it should be adduced at the investigation." This is quite gratuitous, for we know that evidence will be accepted, no matter from what quarter it is obtained. Anything more unfair, ungenerous, or calculated to prejudice certain individuals cannot well be conceived than condemning them before they are tried or charged with any offence, or before a tittle of evidence is adduced against them. Yet this is what has been done by one of our legislators with respect to the explosion at Blantyre; but there is one consolation for those who may feel aggrieved at the conduct of Mr. MACDONALD, which is that his extraordinary views on mining disasters are peculiar to himself, and are not shared in by any other member of the House of Commons. For our own part, we shall wait until the investigation to be carried out by Mr. DICKINSON is completed before we express our own views on the subject, and it is to be hoped that, as such will undoubtedly be the course pursued by the Press, private individuals in ordinary fairness will do the same. Mr. DICKINSON is the oldest Inspector of Mines that we have, has had great experience in such enquiries, and took a very active part in trying to unravel the mystery of the Oaks explosion, so that the greatest confidence may be placed in his ability to bring out all the evidence that can be obtained for tracing the cause of the explosion at Blantyre Colliery. Before concluding our remarks we cannot but express our regret that whilst Mr. MACDONALD has so long been the tutor of the Scotch miners he has not thought it worth his while to form a permanent relief fund association to meet such catastrophes as that which has recently taken place, so that provision might have been made for widows and orphans, without having to appeal to the public for their support. Such funds exist in the North of England, Yorkshire, and Derbyshire, and have been very successful, although the miners in those districts cannot boast of having a Member of Parliament for their chief.

DIFFICULTIES IN JOINT-STOCK ENTERPRISE.

The progress of the JOHN COCKERILL COMPANY illustrates very forcibly the difficulties inherent at present in joint-stock enterprise in Europe. It appears that the purchases and sales concluded by the company in 1876-7 attained an aggregate of 1,178,106*l.*, showing an augmentation of 17,055*l.*, as compared with 1875-6. No sensible augmentation is, however, anticipated under this head so long as an improvement is not witnessed in the present difficult conditions which industry has to sustain. The value of the production effected by the company in 1876-7 in the various divisions of its operations amounted to 1,317,573*l.*, as compared with 1,422,909*l.* in 1875-6, showing a falling off of 105,336*l.* this year. The rough profits of the company in 1876-7 were, however, sensibly larger than in 1875-6, having amounted to 73,679*l.*, as compared with 47,798*l.* in 1875-6, showing an augmentation of more than 50 per cent. this year. With the exception of the calcining works, certain mineral bearings, and a shipbuilding yard organised by the company, all departments of its operations contributed to this *prima facie* favourable result. To the 73,679*l.* just indicated may be added a balance of 10,382*l.* brought forward from last year, making the total rough profits of 1876-7 84,061*l.* From this sum, however, the directors made a statutory deduction of 25,529*l.* in respect of the renewal of tools and premises; secondly, 10,378*l.* was deducted in respect of sundry interest; thirdly, 16,343*l.* was written off for bad debts; fourthly, 8907*l.* was deducted for general expenses. These formidable deductions having been made, a balance of only 23,201*l.* remained available for the payment of a dividend upon the share capital; this balance admitted of the distribution of 1*l.* 8*s.* per share, and this amount is to be distributed Nov. 5. The item of 16,343*l.* for bad debts was certainly a serious one. About half of it (or 9492*l.*) arose under the heading of a contract for iron bridges and pipes undertaken on Russian account. The importance of this contract was 84,000*l.*, and the JOHN COCKERILL COMPANY engaged to transport the material to its destination, and to erect it there. A part of the material was not delivered unfortunately until navigation had closed in the Baltic; and it had accordingly to be carried across Russia in the midst of snow, and during weather of great severity generally. The transport of the material was attended, under such circumstances as these, with heavy expense, and a part of this expense had to be sustained by the company. To make matters worse, the parties for whom this contract was being executed in Russia fell into pecuniary difficulties, and became unable, in fact, to meet their engagements; they accordingly appealed to their creditors—and, *inter alios*, to the JOHN COCKERILL COMPANY, which was a creditor for 28,000*l.*—to abandon a part of their claims in order to avoid bankruptcy. After a due examination of the circumstances, the Council of Administration came to the conclusion that some such arrangement as this was justified in the interest of the company. A loss of 3066*l.* was also sustained last year in transactions pending with a Belgian house; this firm was generally considered as perfectly sound, but, contrary to all anticipations, it was brought down through hazardous speculations undertaken by one of the partners.

The company profited sensibly last year by the severe economy brought to bear upon its operations. Thus a saving of 1458*l.* was effected under the head of general expenses. The still more important saving of 54,336*l.* also took place under the head of wages paid to workpeople. This reduction was effected partly through a diminution in the number of persons employed by the company and partly through a lower scale of wages having been enforced.

SEPARATING GOLD FROM CHILIAN COPPER.

At a recent meeting of the French Society of Political Economy an important communication was made by Mr. Andre Cochut to the effect that by a discovery of an Alsatian—Mr. ALFRED PARAFF—the gold which has long known to be contained in the Chilean copper can be extracted at a profit. The experiments made by the official assayers are said to be satisfactory in the highest degree. It appears, moreover, that Mr. Paraff has erected smelting works on a large scale, and he anticipates that in one year he will be rich enough to buy back Alsace and Lorraine from the Germans. It has frequently been stated upon the best authority that in Chili there are large masses of copper sulphurets which contain from 2*l.* to 3*l.* of gold, although in the absence of any reliable practical process of treatment the separation of it has never been made commercially remunerative. Now that such minerals should remain worthless, while in England refuse are containing only sixpence worth of gold to the ton is treated with profit both at Widnes and elsewhere, it seems marvellous that the Chilean sulphurets should have been so long neglected.

In Chili Mr. Paraff recently announced that he was able and prepared to extract this gold at a profit, and, moreover, could get more out of the sulphurets than they assayed. He stated that he had an ingredient which, mixed with the ore in a certain way, would bring out not only the 3*l.* per ton proved to be present by both humid and fire assay, but also from half-a-pound to a pound of gold beside to every 100*l.* of copper sulphurets. This proportion rather took the Chileans, who, if the statement were verified, had more riches at their door than they ever dreamed of. Mr. Paraff proceeded to prove it. He gave some of them a portion of his peculiar powder, and told them to assay it. Result: no gold, no silver. But this powder could precipitate out of the mass of copper sulphurets the quantity of gold he stated. The powder is taken publicly and mixed with a lot of the sulphurets, and the whole reduced in a crucible. Result 35*l.* of gold, pure virgin gold, which assayed at the Mint was found to be perfectly pure.

Fortunately, we have a communication from our old correspondent, Mr. Henry Sewell (who is now in the United States on mining business), enclosing extracts from articles from various newspapers, in which he enters very fully into the matters here referred to. Mr. Sewell discredits the success achieved by Mr. Paraff upon the principle that what has not been done cannot be done. Referring to the reception which the Chileans have given to Mr. Paraff, Mr. Sewell states that the success created a profound sensation.

Mining engineers, chemists, and those high in authority are converted to his belief. Now large and expensive works are erected in Santiago to work the copper sulphurets by this process. Paraff has sold to the Chileans alone stock in the company to the amount of 40,000*l.* All this has, in Mr. Sewell's opinion, been accomplished in a very shrewd manner. In the first place, the sulphurets contained some gold, as they all knew. They were of this wonderful powder, and he alone must manage the taking. By working in a small way he turns out 35*l.* of gold and other lots in smaller quantities. No large operations could be carried on without extensive works. Mr. Sewell denounces the whole scheme, but this does not diminish the hold which Mr. Paraff has upon the people. Mr. Sewell entertains the opinion that reason why he has been so successful is that those persons called themselves mining engineers who are there seem to have as much faith in Mr. Paraff as others. One of them has written to a merchant in San Francisco, telling him not to denounce Mr. Paraff, as he is really doing wonderful things. "This from a mining engineer located in Germany."

Mr. Sewell also considers that the statement in a Buenos Aires paper requires very much confirmation, but it is submitted that readers may judge for themselves. The newspaper in question states that Messrs. Paraff and Co. handed the Government 150*l.* of gold (worth about 7000*l.*), being the product of the first working, and to-day begins the coining of the same into "condados" as high as 16,000*l.* each, or 80,000*l.* Mr. Paraff is a French chemist, who has invented a mode of extracting gold from copper. His first essay was the reduction of 40 tons of Caracoles copper, which gave 2½ tons of metal. A sample of this was taken to the Mint, and gave scarcely any gold; but when Paraff tried upon his "reactive" process it yielded 35 per cent pure gold. Hence the Government placed at his disposal a department of the Mint where 150*l.* of pure gold have now been turned out.

COAL AND IRON IN THE UNITED STATES.—The Pennsylvania trade is reported to be "considerably demoralised." The state appears, however, to have ended for the present. The aggregate production of anthracite and bituminous coal in Pennsylvania to this year amounted to 17,323,232 tons, as compared with 15,900 tons in the corresponding period of 1876, showing an increase of 1,660,343 tons this year. The market for steel rails at Philadelphia has been rather unsettled for the time being, with a prospect of considerable advance in prices; sales have been noted to the extent of about 15,000 tons, at about \$41 per ton at the mills. It is stated that firms and companies are about to combine for higher prices, business having been for some time past much demoralised. The iron trade has been rather quiet, and but few transactions of importance have been noted. Sales have been almost entirely confined to small lots; one mill has secured sufficient orders in way to keep it employed for the remainder of the year. A considerable portion of the orders on hand relate to street rails. There has been little new business in plate and tank iron, but with orders on hand, and the regular daily demand, the mills are fairly employed. At Pittsburgh the general position of the iron trade has remained much the same; orders have continued to come forward tolerably freely, but there are still complaints with regard to prices. There has been a fairly active trade in scrap at Pittsburgh, although the enquiry has been principally for small lots; some few of the mills are using old rails for specialities.

GOLD MINING IN VICTORIA.—We have been favoured by Thomas Cochman, the secretary for mines, with the reports of Mining Surveyors and Registrars for the quarter ended June, which it appears that there were 38,916 miners employed, of which 14,053 Europeans and 10,312 Chinese were engaged in alluvial and 14,427 Europeans and 124 Chinese in quartz mining. There were 261 steam-engines of 7136 horse power in the aggregate. The material value of the mining plant in use was 1,972,248*l.*; the area of square miles of auriferous ground actually worked upon 1164, and there were 3305 distinct quartz reefs actually proved to be auriferous. The total quantities of gold obtained 72,784 ozs. 6 dwts. from alluvials, and 128,234 ozs. 13 dwts. quartz; together 201,068 ozs. 19 dwts. The 233,864 tons of crushed gave an average of 9 dwts. 18 grs. of gold per ton, 6948 tons of quartz tailings and mullock yielded 2 dwts. 7 grs. gold per ton, and the 1985½ tons of pyrites and blankings upon gave 1 oz. 13 dwts. 15 grs. per ton. From the separation it appears that there has been little if any revival from the depression which has been so long felt.

PATENT BUSINESS OF THE WORLD.—The following abstract, prepared from the official records, shows the remarkable increase in patent business in the principal countries of the world during the past 30 years. The figures first in order for each country are the patents granted in year 1846, and the second figures refer to year 1876:—Great Britain, 493, 3435; Canada, 38, 1202; Prussia, 400, 2657; France, 2750, 5734; Italy, 224 (in 1853); Sweden, 55, 461; Saxony, 31, 483; Sweden and Norway, 3; United States of America, 619, 17,026; Wurtemberg, 8, 254. Patent business has been almost stationary during the 30 years official list in no case having been more than 100 patents. The total patents in the above countries for the years first quoted are 5303, as against 33,938 in the year 1876. It may be explained, however, that the 33,938 patents do not represent an equal number of inventions, as many of the better class of inventions are patented in several countries simultaneously.

PETROLEUM.—In accordance with the decision of the Council of the Petroleum Association, Mr. Boverton Redwood, F.R.S., secretary and chemist of the association, will sail for New York by the steamer Bothnia. Mr. Redwood's visit has reference to testing of the petroleum oil imported into this country, which has for some time past been under investigation by Mr. Abel, C.B., F.R.S., chemist of the War Department, with a further legislation; the present legal method now adopted being found unsatisfactory.

BRICKMAKING.—The brickmaking season is now finished, the whole it has been a very favourable one both for makers and men. Owing to the number of new schools being erected parts of the kingdom, the result of recent legislation, and causes, the demand has been unprecedentedly great, the nature being that bricks have fetched a capital price. Then, the season has been exceptionally fine; the brick-moulders and makers have thus lost but very little time, which, of course, makes a considerable difference in their earnings. Brick moulders and temperers have earned on an average from 50*s.* to 60*s.* per week, and in some cases even more. In the large brickmaking district which Sittingbourne and Faversham are the centres, over 200,000 bricks have been turned out this season. Of these 100,000 were made by Messrs. Smeed, Dean, and Co., of the near Sittingbourne, who are the largest individual manufacturers in the kingdom. It is remarkable what a quantity of bricks can be made in a season. To make a million is regarded as excellent work, but there are several instances in the district in which 1,200,000 or 1,300,000 were made at one "stroke."

IMPORTANT FIND OF IRON ORE.—A Barrow-in-Furness correspondent writes:—"Explorers in this neighbourhood have been successful in the find of a large pocket of metal at a place called scale, where hitherto the existence of hematite was not known. This is an important event to the district, inasmuch as the ore here demonstrates its existence over a larger area than was previously known; and while it affords another proof of the inexhaustible bed of metal in the Furness district, it gives confidence to manufacturers to increase their plant and extend facilities for the production of that class of iron from the highest class of steel can be produced. This is also of importance."

much as the history of the past few years shows how largely it is likely to be utilised in the manufacture of goods hitherto made only of iron."

ULEXITE AND FRANKLANDITE.—The latter name has been given by Prof. J. E. Reynolds to a new mineral borate found with ulexite at Parapaca, Peru, but in describing it has adopted the wrong formula for ulexite, and thus given an erroneous notion as to the relation which the two minerals bear to each other. The formula originally proposed by Prof. How (but afterwards erroneously attributed to Kaut) is acknowledged as correct for ulexite, whilst the result is that the difference between ulexite and franklandite is not as Prof. Reynolds gives it—"that the substitution of one molecule of sodium oxide for three molecules of water is capable of converting ulexite into franklandite as far as composition is concerned," but that the latter differs from the former in containing one molecule of sodium-metaborate in addition.

PROPOSED RAILWAY THROUGH THE MINING DISTRICTS OF NORTH DEVON.—A correspondent informs us that he has seen a plan prepared by Mr. Risdon, C.E., of a projected line from Barnstaple to Combarton, so as to pass near the silver-lead mines now worked in that locality. The line would form a junction with the Great Western and London and South-Western lines, about half-way between Barnstaple and the north-east of the Cornish line on to Combarton. The plan is to be submitted to the office of these two trunk lines, in the hope of having their support.

REPORT FROM CORNWALL.

Nov. 1.—Nothing can be more encouraging than the present aspect of mining prospects. Although the official figures for the tin and copper remain unchanged prices may fairly be put at 2s. above the quotations, so that the actual rise has been 7s. a ton, and not 5s. a ton, as is generally supposed. This is a great deal better than waiting year after year for the new year to bring the more prosperous times with which, somehow, we have never been favoured by a new year yet. Prices of shares, however, have not only kept up, but in many instances continue to advance, with very good cause. If only the general business of the country would improve a little more rapidly we should see something like the old times back again. Happily, there seems some reasonable hope that the war, which, contrary to a very general expectation, has done mining no good, will not be long protracted. The loss caused by the depression has been forcibly indicated by a calculation made concerning Tincroft and Carn Brea. Carn Brea in the tin sold in 1876 at the 1872 prices would have realised more than double the money—75,500*l.* instead of 37,243*l.* The difference at Tincroft would have been 37,000*l.*, or in the two together 112,500*l.*, which sum was entirely lost to the adventurers. Very handsome dividends it would have made. As to the market value of the mines, it declined in more than equal proportion when we regard their essential value as mining property, and look beyond the mere prospects of the moment—a thing which a good many adventurers seem utterly unable to do. Carn Brea fell from 155*l.* to 10*l.*; Tincroft from 60*l.* to 9*l.* 10s., a drop from 515,000*l.* to 78,000*l.* and these two mines afford a very fair indication of what the course of events has been throughout the country.

South Crofty is bearing its testimony to the value and efficiency of the boring machine at work in the 205 fathoms level, where it is boring at the rate of 6 to 7 fms. a month. This part of the mine will now be developed in a quarter of the time that would otherwise have been possible, and one need not repeat how in mining, above all other industries, that time is money. A dozen instances, when mechanical boring will be the rule all over Cornwall, people will wonder how its introduction could have been so long delayed.

Cornwall has again distinguished itself in the competition for the Turner's Company of London for turning in marble. This year the first prize in this competition has been carried off by Mr. John Nankervis, of Ruon Minor, Helston. The work was a tizzo, in the red serpentine of the Lizard, the hand of England's ornamental stones, the design enriched by dulcians. The honours are substantial—a large silver medal, the freedom of the company, and the freedom of the City of London. The company can hold its own. Only the other day, too, Mr. S. Trevel, of Tywardreath, who has erected most of the School Board of Cornwall, was successful in a competition at Plymouth—Cornishman's London—against competitors from all parts of the kingdom.

Mr. J. H. Collins, F.G.S., is delivering a course of lectures on Geological Iron, which is likely to do good service in popularising and teaching the general principles of this important science. It will be a far more of teaching if the future generations of Cornishmen are not wiser than the old ones. What has been lost to the men by scientific ignorance was well illustrated by some remarks of the Rev. Silvanus Rogers, president of the Miners' Association. He said that Mr. Charles Fox had some years since discovered a very striking fact—that from a certain Cornish mine had been sold for years large quantities of mundic at a very high price, which was subsequently discovered to be richer in tin than the average of Dolcoath ore. He had mentioned this fact to a dealer, now dead, who informed him that his firm had obtained a quantity of 20,000*l.* in buying the argentiferous copper ores from Cornish mine, which was never discovered by the sellers. This had been discovered by means of the blowpipe. There were many of the students of the Mineralogical Society who were convinced to make such a discovery, and he would strongly recommend to make this instrument a special study. He would also draw attention to the fact that whereas some 20 years ago the number of Cornish miners who knew more than about a dozen of the commonest minerals might have been counted on one's fingers, there were now scores of good practical mineralogists, nearly every one of whom had been trained in the classes of the association.

On the other hand, some observations made by Mr. Charles Fox on the same occasion happily illustrated the advantages of practical training. He had travelled much in many mining countries; had been brought into contact with Cornish miners, some of whom had studied in the Miners' Association classes, as well as miners of all nationalities. He had found that if there was a hard word to do, the best man to do it was a Cornish miner; while, if anything required special intelligence, the student of the Miners' Association was sure to be called upon. Times were in Cornwall, and although they might somewhat improve, yet Cornishmen were rather to be looked upon as the trainees of the world's mining in future; and his conclusion was, although an ordinary Cornish miner could often earn and his wages 12*l.* a month abroad, yet, if he had also been a mining student, he might get 50*l.*, 100*l.*, or even 150*l.* per month.

Saturday, there died at Penzance, the son of one of the most successful and able engineers to whom England has given birth, a long and painful illness. Mr. FRANCIS TREVITHICK, son of the world-wide fame—Richard Trevithick—breathed his last at residence on the Cliff, Penzance. The deceased gentleman's father and father were long and closely associated with Cornwall and its industries. Richard Trevithick, sen., born in 1735, at age of 30 was the manager of Dolcoath Mine, and constructed the first work of difficulty and importance in those days we are told, and was the lowest practical drain for numerous mines, and reducing the cost of the exit of mine water by 60 or 70 ft. Capt. Trevithick, sen., saw the world's first steam locomotive, and was the first to improve the Cornish and Carn Brea Hill, was the home of John Wesley when he visited that place, and died in 1797 at Penzance. His son, the far more successful Richard Trevithick, was the rival of Watt and Bull in improving the steam engine, was the friend and neighbour of Murdoch, invented and worked a steam engine at Camborne, and was the originator or improver of innumerable machines and appliances for breaking rocks and dredging by steam, as well as of the steam locomotive. Mr. Francis Trevithick, his son, was principally educated at home, and on his father's return from Peru resolved to follow his profession, and on his father's return he advanced himself until he gained the very responsible position of chief engineer and manager of the London and North-Western Railway, and became the steward of the extensive Telford property, as his father had been the mineral agent of it a century previously. The office he held for many years, and then retired into private life at Penzance, where for some years he devoted himself to collating and publishing the abun-

dant and interesting facts found in the two volumes of his father's life, which he published in 1872, to the superintendence of the education of his children, and to such relaxations as yachting, music, reading, and athletic exercises gave him. For some time Mr. Trevithick had been ill, yet the end was somewhat sudden, and many friends will learn with regret of the demise of one who was unobtrusive and kindly, and who possessed many very sterling qualities.

REPORT FROM THE NORTH OF ENGLAND.

Nov. 1.—It is regarded now as all but certain that there can be no substantial improvement in the state of the Iron Trade before, at any rate, the spring of next year. The tendency for several weeks past has been towards lower quotations, and at the present moment, in spite of the fact that the end of the navigation season is close at hand, and that there should, consequently, be a better demand for iron on account of export trade, the rates quoted on 'Change are as low as any that have been current for some ten or twelve years. Some makers who are finding iron increasing rapidly on their hands are disposed to make almost any concessions to buyers rather than stock large quantities on the one hand, or blow out their furnaces on the other, both results being equally uncongenial to a needy firm. No. 1 is quoted at 44s. 6d., and No. 3 at 40s. per ton, less 1 per cent. commission, but business has been done at even lower figures than these. There are now 198 furnaces in blast throughout the North of England, producing at the rate of over 40,000 tons of pig-iron per week. Much of this produce is shipped to Scotland, where there only about 80 furnaces blowing, but the great bulk of it is sent to other countries, and notably to Germany, France, Belgium, and Holland. America has entirely ceased to take any pig, and now receives very little finished iron from the Cleveland district.

The Lakenby Ironworks were offered for sale by public auction this week at Middlesbrough. There was a large number of pig-iron makers and others at the sale, which took place while 'Change was going on. The works only comprise three blast-furnaces, which, however, are not very old, and as they are now in operation the concern was sold as going. The first bid, of 39,000*l.*, was made by Mr. J. H. Richardson for Messrs. Bolckow, Vaughan, and Company. This was followed by the reserve of 45,000*l.*, and from thence the bidding was alternated between Mr. Richardson and Mr. Dodds, M.P., until the latter gentleman became the purchaser of the works at the price of 50,100*l.* The West Hunwick Colliery, in Durham, belonging to the same estate, was afterwards offered, and bought by Mr. Dodds for 2050*l.* An attempt was afterwards made to sell the works of the South Durham Iron Company, at Darlington, but as no bid could be obtained the concern was withdrawn.

The finished iron trade does not seem to call for any remark, except that steel is more than ever threatening its very existence. It is, of course, impossible for rail-makers here to get orders for iron rails at 5*l.* 15s. to 6*l.* per ton when steel rail makers in Wales and Sheffield are only quoting 6*l.* to 6*l.* 10s.; and for all practical purposes it may be said that the rail trade of Cleveland is dead. But the plate trade is now also threatened. Steel is claiming more and more attention for shipbuilding purposes, and the steel carvettes that Messrs. Elder and Co. are building for the Admiralty, and the new steel ship that Messrs. C. Mitchell and Co. are building on the Tyne, point to a future that iron manufacturers can hardly contemplate without some degree of misgiving. The ship-plate makers in the North of England are not doing so well as they were. Some of them, indeed, are getting very slack; but there is with the majority a prospect of a tolerably active winter. Prices have not varied for some weeks past. Merchant iron is in poor request, and prices are tending downwards.

In reference to mining operations, the events of the past week have been singularly devoid of interest. The Durham collieries are generally doing about three-quarters time. It is said that the Earl of Durham has got a large American order for the Lambton Collieries. The shipments from Sunderland for the past month have been above the average, and would have been more but for the strike at Ryhope Colliery. From Newcastle, however, the shipments of coal are declining. Mr. J. S. Robson, partner and manager of the Butterknowle Colliery Company, has this week been fined 10s. and costs by the Bishop Auckland Bench for permitting 107 lbs. of gunpowder and a quantity of dynamite to be stored ready for use in an unauthorised place. In Cleveland the ironstone mines are working pretty regularly, but the output of ore is much less than it was a few months ago.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Nov. 1.—Not half of the orders which during a busy year the finished ironmakers of South Staffordshire have been accustomed to execute are now coming to hand. The demand runs mainly on sheets, but prices for commoner descriptions are kept down by competition from Middlesbrough, South Wales, and Belgium. Firms who have a high reputation for their bars and plates are the next best off after the sheetmakers: 8*l.* 10s. is the crucial price for bars. The demand for pig iron decreases rather than increases, and individual makers have thousands of tons on hand without any early prospect of being able to dispose of them. Although the furnaces in blast do not now number even 50, yet makers are preparing to blow out others if the demand does not improve. The dullness in the furnace and forge coal trade is unrelieved, and short time is the rule at the pits. The house coal trade is somewhat better.

Owners of collieries are noting with every satisfaction that at meetings of the men, which are being held in various parts of the district, the new sliding scale which was the outcome of the recent notices for an increase of working hours, and which is on the principle that when Earl Dudley's furnace coal advances 1s. a ton the colliers' wages shall rise 3d. per "day," is being accepted. The local leaders tell the men that while they believe the men are entitled to a rise of 4*l.* upon every 1*l.* advance in coal, still "it would be the height of folly to resist the proposed scale." It may be now taken for granted that the scale will be universally accepted. This will help to impart strength to the market, and encourages colliery proprietors to enter into contracts extending over a longer period than has lately been the case.

On the local Stock Exchanges the effect of the general quietude of trade throughout the district is felt in a marked indisposition to do business either in respect of permanent investments or with regard to speculation. Coal and iron properties are especially dull. Since my last the 6*l.* paid shares of the Walsall Wood Colliery Company have sold at 1½ dis. The Patent Nut and Bolt Company's property has changed hands at 7 prem., and that of the Patent Shaft and Axletree Company at ½ dis. Sellers of the Hamstead Colliery Company's shares stand at 4 dis., but there are no buyers at this figure. Buyers of the Spon Lane and Cannock and Huntington Collieries would like to purchase at 6½ dis., and 12 dis. is being unsuccessfully offered for the Pelsall Coal and Iron Company's property.

In North Staffordshire the threatened extensive strike of colliers has dwindled down to small proportions, for the great majority of the men who were out at the date of my last, and who came out at the end of last week, have now returned to work. They have been influenced to do this by the expressed determination of the masters to shut down the pits if a dispute of any magnitude occurred, and by the refusal of the Miners' National Union to afford them any help, "as the men in resolving to strike had acted in direct opposition to one of the rules of the Union, which was that where arbitration was available a strike should not be resorted to." With the exception of some four or five collieries, employing about 1500 or 1000 men, the pits generally in the district are in full operation. The coal market is more settled than it was a week ago, and so, too, is the iron market, but without any improved demand.

The coroner's enquiry in reference to the boiler explosion in the Ravendale Ironworks, Tunstall, in June last, by which 11 lives were lost, has, after numerous adjournments, been completed. Mr. Staveley Hill, M.P., attended the enquiry on behalf of the Home Office, and Mr. Bramwell, C.E., made an examination of the boiler-plates, also by order of Mr. Cross, whose vigilant attention to the case has given great satisfaction in the district. The plates were subjected to severe tests, under the direction of Mr. Bramwell, who gave a minute description of the experiments and their results.

Two of the plates were brittle, and Mr. Bramwell was of opinion that boilers before being used should be tested by hydraulic pressure, and after the insertion of new plates, should undergo the same test. Toughness was a more important quality in boiler iron than tensile strength, and the ordinary mode of testing of the latter was defective. Power of flexibility ought to be considered more than tensile strain. Tensile strain was an imperfect test. Mr. Bramwell said boilers surrounded by external heat ought never to be worked at a higher pressure than one-sixth of the bursting strain, and this boiler had been worked at one-fourth. He attributed the explosion to the brittleness of a portion of the iron. The jury found a verdict of "Accidental Death," accompanied by a recommendation that no new boiler should be used before being tested by hydraulic pressure, and that the same test be applied to every boiler after being repaired, that no boiler be worked at a greater pressure than one-sixth of its bursting strain, and that all boilers be under efficient control and be inspected at every change and turn.

A difficulty has arisen which threatens to end in the closing of the ironworks of the Osier Bed Company (Messrs. W. M. Sparrow and Co.), of this town. A few days ago the men engaged in the tinning shops made a demand for an increase of wages on account of some alteration in the making of the plates. This was refused, as the employers have already lost a large sum in keeping the works in operation. Some of the men declined to work, and they were paid off. The mills and forges are now idle, though work is going on in a few of the shops to complete the work in hand. Whether the works will be closed altogether or not is not yet settled.

The actions against the Birmingham Canal Company, which were brought by Messrs. George and R. Thomas, colliery owners, Bloxwich, and by Messrs. S. Groucutt and Sons, for damages resulting from the overflow of a brook used for carrying off the surplus water of the canal in 1875 has attracted much attention. The case was a long one, much professional evidence being adduced. Mr. Dowdeswell, Q.C., who heard the case of Messrs. Thomas (the other not being gone into yet) will hear the final arguments of the counsel next Saturday, in London, and shortly afterwards we may learn his decision. Messrs. Groucutt's case is adjourned *sine die*, and they will give defendants notice to proceed. Each firm claimed 3000*l.* as compensation for the flooding of their collieries. As the case is *sub judice* yet no comments can be made upon it, but, briefly, it may be remarked that near the Beechdale Colliery, owned by Messrs. Thomas, the canal company discharge the surplus water from their canal into the Sneyd brook, and during the rainy period in October, 1875, they had turned so much water into the brook from this canal that it had overflowed its banks, and, running into the pits, quite overcame the pumping engines and stopped operations. The weir at this place had been increased, and much more water had been sent into the brook than it was calculated to carry it away. Therefore, the plaintiffs considered the company had been guilty of negligence, and ought to pay for the damages caused from that negligence. The plea of the defendants is that they did all they could to prevent damage from the floods. Whether they did the referee will decide. The evidence on behalf of the plaintiff was very complete and voluminous.

—Wolverhampton Chronicle.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Nov. 1.—Very little change has taken place in the state of the Iron and Coal Trades of the district of late. There has been the usual output of pig, with a steady but by no means active demand either for local requirements or exportation to other districts. In manufactured iron business is fairly maintained at the leading establishments. House coal moves off more freely, and a large tonnage is being sent to the Metropolis, so that some of the pits at Clay Cross and other places are busier than they have been for some time. Matters are now looking more promising at Driffield and Unstune. After being out on strike for about nine months the men at Messrs. Addy and Sons' colliery at the former place have agreed to resume work, a settlement having been come to on Wednesday. This will be the means of finding employment for about 200 men and boys, and at the same time a relief to the Miners' Association, to which most of the men belonged, and who were consequently in receipt of the usual strike pay. This resumption of work does not speak much in favour of Mr. Macdonald's proposed scheme of limiting the output of coal, so as to advance wages. One would think that the most effectual means for restricting production would be by setting down a number of collieries altogether instead of reducing the number of working hours. In Derbyshire, however, there is not much likelihood of Mr. Macdonald's panacea being attempted.

Most of the Sheffield branches of trade are still very quiet, and there does not appear much chance of their improving during the remainder of the year. Makers of Bessemer rails are of course doing very well, and the orders in hand will last some time at several of the works. In cast-steel, business is still but moderate, little being done in rifle-barrels, general ordnance, or lighter and ordinary material. Some of the wireworkers were doing very well, considering the state of affairs generally in the town. The sheet and plate mills are only running moderately well, and there does not appear to be much doing in ordinary rails. Rather more is being done in some descriptions of goods for Australia, although it is said that American houses have taken from us a great deal of the trade with that important colony. Such may be the case with respect to inferior qualities of tools, but our manufacturers still hold their own for cutlery and other steel goods, for which there is a rather better demand even for America itself. Fancy goods and plated ware are meeting with a better enquiry, as is generally the case when Christmas approaches. Malleable material goes off tolerably well, and is now used for many purposes for which steel and copper were formerly considered to be the necessary metal. At the works of Messrs. Crowley and Co. there is the greatest variety to be seen of any known establishment, some of the castings being finely finished to equal the most elaborate workings in steel. At the works outside the town business is by no means brisk, excepting those engaged in the production of Bessemer. The Northfield Works are entirely closed, so that a good many men have been thrown out of employment, and at a time when work is hard to be obtained. In South Yorkshire the house coal trade has improved, but it may also be said that production is rapidly increasing in all directions, so that coal of every description is plentiful, whilst it is not unlikely that before long we shall see a good deal of steam coal stacked on the pit hills.

The directors of Messrs. Wells, Birch, Ryde, and Co. (Limited) have celebrated the opening of a branch railway in connection with their Hoyland Silkstone Colliery, near Barnsley. The line is only a mile in length, but it opens out a district through which none has previously passed, and it will be of great local service. Its cost is about 20,000*l.* There was present at the opening a numerous company, including several of the directors and officials of the Manchester, Sheffield, and Lincolnshire Company—Sir Edward Watkin, M.P. (chairman), Mr. W. Featon (deputy chairman), Colonel Hutton, Mr. Alfred M. Watkin, M.P., and Mr. J. W. Macleure (directors); Mr. R. G. Underdon, general manager; Mr. E. Ross, secretary; Mr. C. Sacré, engineer; Mr. Bradley, general superintendent; and Mr. Lingard, solicitor to the company. They were received at the colliery by Mr. C. Wells, the chairman of the company, and Mr. J. Higson (J. and F. Higson, Manchester), the company's engineer. Sir Edward Watkin, with others, went down the fine shaft, which is 20 ft. in diameter, and went into the workings and examined them. Whilst at the bottom Sir Edward remarked that he had about achieved the ambition of his early days, which was to go up in a balloon, go down a colliery, and be a Member of Parliament. Subsequently the company were entertained at dinner at the King's Head Hotel, Barnsley. Mr. C. Wells presided. The Chairman, in proposing Success to the Manchester, Sheffield, and Lincolnshire Company, referred to the rumour of an amalgamation with two other railway companies, and expressed a hope that this would remain an independent company. As an indication of the progress which the company had made, he said that when Sir Edward Watkin took the helm the shares stood at 19*l.* and 20*l.* each, whereas now they were over 80*l.* In replying to the toast, Sir Edward congratulated Messrs. Wells and Company, and called attention to the remarkable developments of the colliery industry in the Barnsley district of late years, but upon the question of amalgamation he refrained from speaking.

On Thursday the Barnsley seam of coal was reached at the Monckton Main Colliery, about six miles from Barnsley, at a depth of rather more than 400 yards. Instead of 8 ft. or 9 ft., however, it was found to be only 5 ft. 6 in. thick, but about 7 ft. above it there was 4 ft. more coal, so that it would appear that the two are really only one seam, the parting of dirt between them being such as is likely to be met with as the coal is met with along the northern part of the district.

At the Hoyland Silkstone Colliery the men are still on strike, and at a meeting of the Council of the Miners' Association, held at Barnsley, on Monday, it was determined that the men should re-

ceive strike pay, which had been stopped for several weeks on the men refusing to resume work on the terms agreed upon by the manager and a deputation from the Association.

TRADE OF THE TYNE AND WEAR.

Oct. 31.—There is little change to notice in the general position of the Coal Trade here. Shipments of gas and house coals have been very large on the Tyne and Wear during the week, and though prices are firmer no material advance can be noticed. There is little change in Northumberland in the state of trade at the steam coal works, only a few of which are making full time; the great majority are working little more than half-time, and, of course, numbers of the men are in difficulties; those at work, however, contribute towards the support of those not so fortunate. The North Seaton Colliery is not expected to be commenced again this winter. At East Holywell a number of men have been dispensed with; one of the pits at Delaval will be stopped during the present week. At the great Dudley Works only five days have been worked during the past fortnight. One of the pits at Cramlington is to be stopped. As so many works have been stopped it is expected that those retained at work will be better employed shortly. The Cowpen Coal Company are boring for coal at Woodhorn, where it is intended if the seams should prove of good quality to sink shafts in such a position as to get a large tract of coal without much expense for underground haulage. This shows that there is still some confidence that the trade will in time recover from its present depression, and also that the masters are determined to work the coal at the lowest possible cost. The men in the steam coal collieries have not yet agreed to increase the hours of work, but that question is not finally settled, and they are now expected to make some concession on this point.

In Durham the works, although not fully employed, are certainly in a better position than in Northumberland. The gas-coal works are best employed, and have some chance of making a little profit, and the best house and coke works are in a similar position, but for all inferior coals the demand continues quite inadequate, and the prices realised are far from remunerative.

At the North of England Institute of Mining and Mechanical Engineers meeting on Saturday a paper will be read "On the condition of mining industry in Germany in the year 1875," by Mr. J. B. Simpson, and the following paper will be open for discussion "On an improved method of detecting small quantities of inflammable gas," by Mr. A. L. Stevenson.

Preliminary trials of a new form of railway coupling, which is the patented-invention of Mr. Richard Harrison, C.E., of Union Chambers, Grainger-street, West, were carried out on portions of the railway laid through Messrs. John Spencer and Sons, Newburn-street Works, on Friday. By means of this coupling porters are able to couple or uncouple the wagons of a goods train without having to pass between them. The operation is very simple, and requires no skill on the part of the attendant. As two trucks are pushed together the act of turning a small handle on either side of the wagon serves to couple them together. Similarly, when it is desired to disconnect or uncouple any portion of a train the same motion is given to the handle as for coupling. In the common chain coupling, as at present used, every time a truck has to be connected to or disconnected from another a servant is required to go between the wagons, and lift the end link of the coupling chain on to or off the opposite hook. It frequently happens that the train is moving during the whole operation, and the porter has to stoop below the buffers to come from between the wagons. Even when the train is at rest the signal "all right" is given, and the train started before the man is clear of the wheels. Should he slip or stumble he is almost certain to be seriously injured, and may lose his life. All this is bad enough when the work is carried on in daylight, but when it is considered that on most of our crowded passenger lines the bulk of the heavy goods traffic is worked at night some idea may be formed of the serious loss of life and limb involved in the present method of coupling railway trucks, and of the urgent necessity of some contrivance to render the work less dangerous. From a recent Board of Trade Report it appears that in one year 122 railway servants were killed and 461 injured in joining, leaving, or falling off engines or vehicles, whilst 51 were killed and 347 injured in coupling and uncoupling rolling stock. In the Harrison improved coupling, which was put in operation on Friday, a long iron rod or shaft is hung across the truck in bearings just below the end of the wagon framing. On each end of the shaft is a short handle, by which the bar may be turned through a quarter of a circle. Near the centre of the rod are two light-curved arms, one on each side of the drawhook. When the shaft is rotated the curved arms act on two pieces projecting at right angles from each side of the coupling link, and raise it sufficiently to pass over the hook of the approaching wagon. When the trucks are close enough the attendant lets the handle go, the link falls on to the opposite hook, and the curved arms return to their original position under the wagon. Harrison's coupling link is somewhat different to the ordinary chain. The end link is U-shaped, having the two pieces mentioned above projecting outwards at right angles from the straight portions of the U, a few inches from the open end. Two cheeks of flat plates, about 9 in. long, are attached by means of a bolt to the open end of the U-link, one on each side, their other ends being connected with the drawhook by means of the bolt which had served to attach the ordinary coupling chain. It will be readily seen that with this construction of coupling link the same amount of play may be given between the wagons as with the ordinary coupling chains, thus rendering a train up with the new coupling as easy to start as one of the old chains. The great advantages of Mr. Harrison's invention are that either coupling or uncoupling may be accomplished by means of a handle on each side of the wagon without a man going in between. No portion of the apparatus projects beyond the sides of the wagon. It is extremely simple, and consequently inexpensive. It has no springs or catches, and requires no oil. It will act equally well on the sharpest curves and steepest inclines as on a straight level road. One of its greatest advantages from a mechanical point of view is that the lifting mechanism is completely detached from the link, so that when a wagon is running the link alone is in strain, the shaft and arms being called into play only when it is desired to raise the link for coupling or uncoupling. This ensures the minimum of wear and tear, and consequently of cost for repairs.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

Nov. 1.—The Iron Trade has exhibited but little indications of improvement, and another step in the wrong direction is the stopping of the Briton Ferry Works, which goes to swell the list of works which have succumbed to the depression of trade and the unremunerative nature of prices. However, there are more orders for iron rails in hand than usual on account of India and the colonies, and this circumstance is more peculiar in consequence of the strong prejudice which exists in favour of steel. Clearances during the week have been small, but include parcels to Gothenburg, &c. There is a probability of a revival of trade in the direction of America, though, perhaps, not to the extent which has previously been the case, but at any rate there is an enquiry in this direction. The steelworks are as usual fairly well employed. The bar trade is unsatisfactory, and in this respect the Belgians continue to be our rivals, and to an unsatisfactory extent too. Tin-plates are materially unsatisfactory, and there is no chance of an improvement until the beginning of next year.

The Coal Trade is not materially altered. As to the foreign demand, there is no improvement, and the heavy amount of rain which has fallen lately has caused several works in the neighbourhood of Cardiff to be flooded, though no serious mischief has been done. There is a fair demand for house qualities, but steam coals are stationary. Coke is a little better enquired for. Patent fuel is dull. As to the work which is given at the various collieries, it differs very materially; at some the pits are stopped at intervals, while at others only one, two, or three days are placed at the service of the men. Of course, in other instances the pits are fully employed.

As an instance of local enterprise I may mention that the Great

Western Railway Company are about sinking two new shafts on their property at Mae-teg. The work has been entrusted to Mr. W. Kenrick, of Dowlais and Westminster.

As to the Cwmauon Ironworks, which, as stated in last week's Journal, were purchased by Mr. W. Shaw and others for 55,000*l.*, the tin-plate works and their stocks have been sold for 51,000*l.*, being nearly the whole of the cost price, and it is evident from other sales that the purchasers have made a good thing out of it. We understand that a committee of dissentient shareholders is being formed, who will take all matters connected with the sale of the property into consideration.

At a delegate meeting, held this week, it was resolved to send a deputation to the Nant-y-Glo and Blaenau Company's manager with reference to the 5 per cent. reduction. With regard to a further reduction at Risca, the meeting resolved to support the men in their resistance to a reduction. The men have recently consented to a 5 per cent. reduction, and are threatened with a further 20 per cent.

At the Tredregh Police Court the Blaenau and Nant-y-Glo Company were charged with infringing the Mines Regulation Act by neglecting to keep plans of the Hirwain and Gethin Pits, at Blaenau. Mr. Cadman, Government Inspector, laid the information in each case, and Mr. Plews conducted the prosecution. The neglect was admitted, and the surveyor to the company (Mr. Evans) said a plan was being made of all the works above and underground. The Bench inflicted a fine of 5*l.* and costs in each case, and allowed the usual solicitors' fees. Informations were also laid against Messrs. Matthews and Evans, colliery owners, Maesycwmmwr, for infringing Rules 13, 13, and 29 of the Mines Regulation Act. The defendants pleaded guilty. The neglect was in not providing books containing a daily record of the state of the workings, and also with omitting to place a proper fence round an air-shaft. There were three separate offences, and the Bench imposed a penalty of 40*s.* and costs in every case.

The cutting of the first sod for the Neath Harbour works was performed on Thursday as announced. The project, briefly explained, is to float the Neath river from near Neath Abbey to Cwrt Sark Pill, involving an estimated expenditure of 165,000*l.*, and the success achieved is in a great measure due to the exertions of Mr. James Kempthorne, the ex-Mayor of Neath. Lady Dynevor had a very enthusiastic reception, the Mayor, corporation, and townspeople, who are enthusiastically favourable to the project, harbour commissioners, local artillery and rifles, Neath pilots, and others going in procession to Glyn Levios, near Plas-y-rhin, where the ceremony took place. Prayers having been read by Archdeacon Griffiths, Mr. J. H. Rowlands presented with a very neat address duly signed on behalf of those presenting it, by himself, and Mr. Kempthorne. Lady Dynevor having gracefully accepted the document, inaugurated the work by turning the first sod, other sods being afterwards cut by Mrs. Gwyn, Mrs. Rowlands, and others. The silver spade with which the work was done was supplied by Mr. Davies, jeweller, and inscribed:—"Neath Harbour. Presented to Lady Dynevor upon the occasion of her ladyship turning the first sod of the Neath Docks and Works, Oct. 25th, 1877." Mr. Ball furnished the oaken wheelbarrow. As the luncheon after the ceremony about 250 guests sat down, amongst them being Archdeacon Griffiths, Miss Griffiths, L. and Lady Dynevor, Mr. H. M. Miers, Mrs. Miers, Mr. E. A. Moore, Mr. A. Miers, Miss Griffith, Rev. Gethin Griffith, Mr. J. N. and Mrs. Moore, Lieutenant Trick, Swansea; Mr. J. Thomas, Court Herbert; Mr. E. S. and Mrs. Parsons; Mr. D. Thomas, Pencalla; Dr. Mrs. and Miss Rydlyn; Mr. W. M. Jeffreys, Mr. H. St. G. Cauldwell, Mr. R. Thomas, Mayor of Neath; Mr. J. and Mrs. Kempthorne, Rev. J. P. Hughes, Rev. and Mrs. Buckley, Dr. and Mrs. Griffiths, Mr. W. and Mrs. Whittington, Mr. W. R. and Mrs. P. Bidd, Mr. A. Hayman, Mr. H. and Mrs. R. Smith, South Wales Railway; Mr. G. March, West of England Bank; Mr. W. Whittington, borough surveyor; Mr. T. P. Whittington, Mr. Russell, Mr. D. Davies, Mr. R. Williams, and the Rev. L. Jones, of Cadoxton. Archdeacon Griffiths, in responding to the toast "The Bishop and Clergy of the Diocese and Ministers of all Denominations," paid a high tribute to the ministers of other denominations, with whom he and those with him had, he said, always worked with the utmost cordiality. "The Health of Lady Dynevor" was responded to by Lord Dynevor, in doing which he said that the mining districts of this country had suffered greatly. In a conversation which he had with Sir George Elliot, that gentleman stated that there was an excellent opening in Neath for carrying out the works which they had commenced that day. There were many disappointments in bringing about works of that description, but he congratulated the harbour commissioners, and also the town, on the success which had been obtained, and hoped it promised brighter days.

The toasts of the Commissioners of Neath Harbour and the Mayor and Corporation of Neath were afterwards duly honoured, and Mr. Gwyn, in proposing "The Chairman," Mr. J. H. Rowlands, said he had always found him ready to do his utmost for the advantage of the country. He had shown great experience and ability in whatever he took in hand. As to the present undertaking, he must also in justice refer to the efforts of his worthy friends Mr. Kempthorne and Mr. John Moore. He hoped they would not only live to see the docks finished and filled with ships, but that they would live to see what they had done carried to the successful issue which when most sanguine they anticipated. The Chairman, who was warmly received, acknowledged the compliment. He firmly believed that they would be able to carry the undertaking through. It was true that it was three years since they obtained their Act, and considerable exertions had been necessary. The result was mostly due, however, to Mr. Kempthorne and the valuable aid they had received from Mr. John Moore. He hoped that in three years hence they would have the Princess of Wales at Neath to move the lever which would open the docks. Mr. David Bevan, in a very complimentary manner, proposed the health of the solicitor (Mr. Kempthorne) and the engineer (Mr. Brereton). Mr. Brereton hoped that his opinions in regard to the dock would be justified in three years hence by the result. Mr. Kempthorne, who was received with great cheering, stated that some time back the Commissioners came to the conclusion that they should do something to improve their harbour, as other towns have done, and he, for one, would not be satisfied until the port of Neath became one of the best in the channel, and a second Liverpool. The place was admirably suited for docks, and was the natural outlet of a large mineral district. The healths of the contractors—Messrs. A. Vignoles and Greenbank—were proposed by Mr. Bidder, and Mr. Greenbank responded.

Mr. Sutton, in proposing "Prosperity to the Mining and Manufacturing Interests of the District," stated that the introduction of science in the manufacture of steel pointed to a degree of prosperity in that neighbourhood. It was necessary that steel should be made from foreign ores, and those of our own country were of an inferior description, and were more costly. Foreign ores could be obtained in unlimited quantities with a four days' voyage, and he was glad to say that Neath was nearer to the ports from which ores were sent than almost any other port in the channel. The coals in the Neath district were also more suited than any other for the manufacture of steel, and they could not look round without seeing that Neath would become one of the greatest steel manufacturing in South Wales. Mr. J. N. Moore responded, and proposed the "Railway and Canal Interest," which was responded to by Mr. Bevan and Mr. Cauldwell. The speakers to the following toasts included Mr. P. Charles, Mr. Jeffreys, Mr. Humby, who in the course of his speech mentioned that the Neath Copper Works, which it will be remembered were formerly known as the Crown, would shortly again be opened, and from the enlarged facilities for commerce which the harbour will offer, a general impetus will, no doubt, be given to the entire trade of the district.

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IN THE MATTER OF THE COMPANIES ACT, 1862, and of the SOUTH GREAT WORK MINING COMPANY.—ALL CREDITORS or CLAIMANTS of the above named company who have not received notice from the Official Liquidator thereof, that their claims have been already admitted, are hereby required to COME IN and PROVE THEIR SEVERAL DEBTS OR CLAIMS, at the Registrar's Office, Truro, on Saturday, the 10th day of November next, at Eleven o'clock in the forenoon, or, in default thereof, they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such proof. And for the purpose of such proof, they are to attend in person, or by their solicitors or competent agents, at the place and time above mentioned.
FREDERICK MARSHALL, Registrar.
Dated Registrar's Office, Truro, the 29th day of October, 1877.

In the Court of the Vice-Warden of the Stannaries, Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the EAST WHEEL BASSET MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of the said Court, on Monday, the 12th day of November next, at Eleven o'clock in the forenoon, at the EAST WHEEL BASSET MINE, in the parish of REDRUTH, within the said Stannaries (in One or more Lots, and subject to such conditions as shall be then and there stated and produced), all that the INTEREST of the said company and in the SETTS under which its mining operations have been carried on, together with the WHOLE of the

MINING PLANT, MACHINERY, MATERIALS, AND EFFECTS, including ALL ORES at surface belonging to the said company, and being within and upon the said Mine, and comprising:—
ONE 60 in. cylinder PUMPING ENGINE, with TWO BOILERS, 10 tons each, balance bob, sheers, and capstan.
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For full particulars of which apply to the Official Liquidator of the said company, at the Stannaries Court Office, Truro; and for inspection of the said machinery, &c., to the Bailiff in charge at the mine.
HODGE, HOCKIN, AND MARRACK, Truro.
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Dated Stannaries Court Office, Truro, 31st October, 1877.

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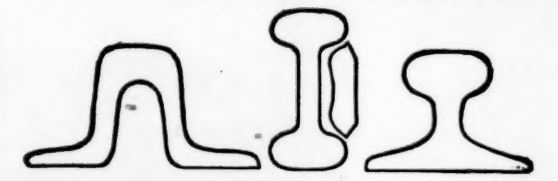
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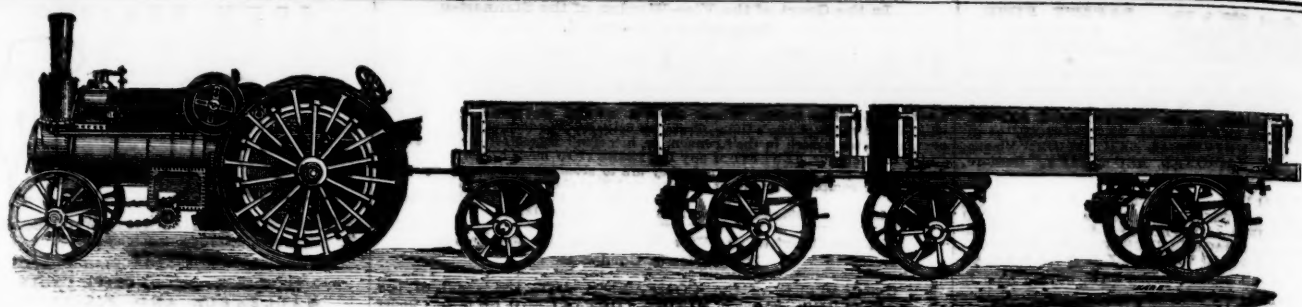
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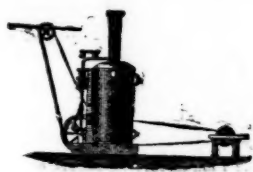
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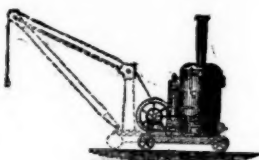
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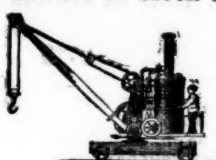
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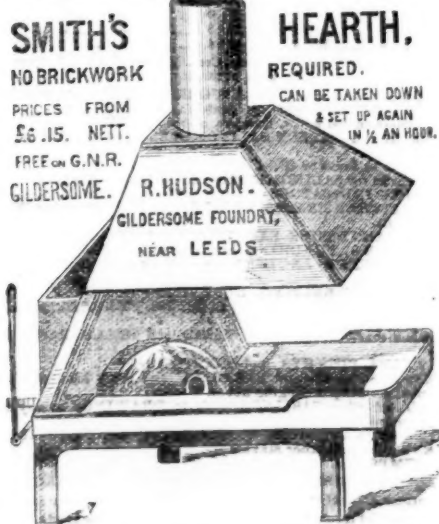
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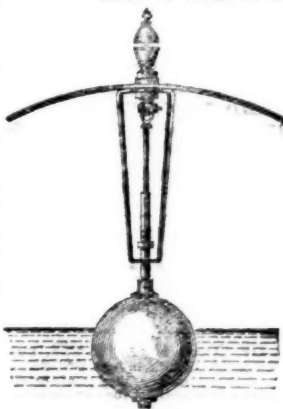
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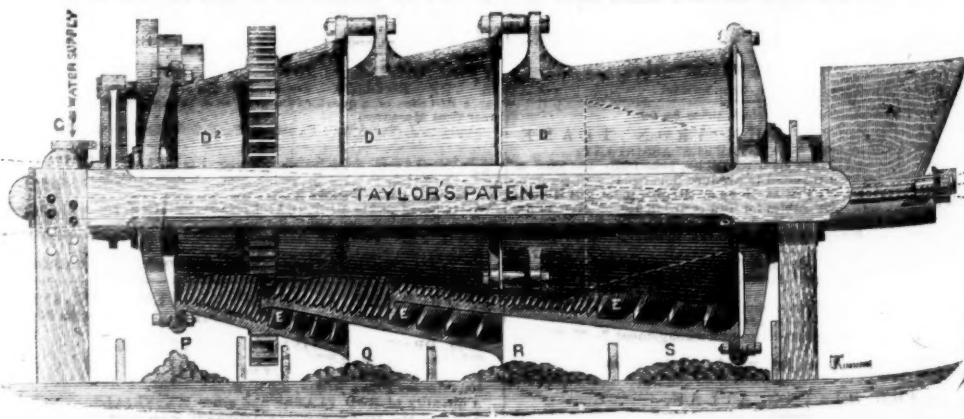
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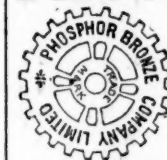


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9550	Gavaton, <i>c</i> , Tavistock	4 5 8..	3 1/2..	3 1/2	3 1/2
2000	Glan Clwyd, <i>i</i> , Gwyddelwern	1 5 0..	1	3 1/2	1
5000	Glenroy, <i>s</i> , <i>s</i> , <i>i</i> , Isle of Man	2 0 0..	3 1/2..	3 1/2	3 1/2
5000	Glyn, <i>s</i> , <i>i</i> , Llanidloes	2 0 0..	1 1/2..	1 1/2	1 1/2
5000	Goginan, & Level Newydd, Card., <i>i</i>	1 0 0..	—	—	—
5000	Gold, <i>c</i> , Merionethshire	1 0 0..	—	—	—
5000	Goren, <i>s</i> , <i>i</i> , Carmarthen	1 0 0..	1 1/2..	1 1/2	1 1/2
5000	Gr. E. Foxdale, <i>i</i> , I. of Man (11 sh.)	0 18 0..	—	—	—
5000	Great Holway, <i>i</i> , Flintshire	5 0 0..	5 1/2..	8 5/8	8 5/8
5000	Great Penty-Fydwel, <i>i</i> , Holywell	2 0 0..	—	—	—
5000	Gr. Wheal Eleanor, <i>c</i> , North Bovey.	1 0 0..	3	2 3	2 3
5000	Grosvenor, <i>i</i> , Holywell (21 sh.)	0 15 0..	—	—	—
5000	Harehope Gill, <i>s</i> , <i>i</i> , Durham (21 sh.)	0 5 0..	—	—	—
40	Harwood, <i>s</i> , Durham	0 15 0..	1	1	1
5000	Hay Eisteddfod Miners, <i>s</i> , <i>i</i> ..	2 0 0..	—	—	—
5000	Ish, <i>s</i> , <i>i</i> , Scotland	28 0 0..	—	—	—
5000	Killaloe, <i>s</i> , Tipperary†	1 0 0..	—	—	—
5000	Killifreth, <i>t</i> , Chacewater	2 1 0..	3/4..	3/4	3/4
5000	Kington Con., <i>s</i> , Stoke Climsland.	1 0 0..	—	—	—
5000	Ditto, preference	1 0 0..	3/4..	3/4	3/4
5000	Ladywell, <i>s</i> , <i>i</i> , Salop..	2 10 0..	1 1/2..	3 1/2	1 1/2
5000	Ditto, 10 per cent. pref., <i>i</i> , each..	0 10 0..	3/4..	3/4	3/4
5000	Levant, <i>c</i> , <i>t</i> , St. Just..	9 18 8..	—	—	—
5000	Llanrhaidr, <i>i</i> , Montgomery*	2 0 0..	—	—	—
5000	Llanrwst, <i>t</i> , <i>i</i> , Carnarvon	2 0 0..	3	4 1/2	4 1/2
5000	Liwyn Telfy, <i>s</i> , <i>i</i> , Cardigan	1 0 0..	—	—	—
5000	Medlyn Moor, <i>t</i> , Wendron	1 17 4..	2	2	2
5000	Dittonear Copper, Hayle*	2 0 0..	2 1/2..	2 3/4	2 3/4
5000	Ditto	1 15 0..	2	1 1/2	2
5000	Melby, <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> 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IRON AND COAL COMPANIES
Company.

Shares.	Company.	Price.
#100	Abbot, John, and Co. [L.]	75 0 0
15	Albion Steel and Wire Co. [L.]	14 0 0
5	Altham Colliery Co. [L.]	14 0 0
100	Asbury Co. [L.]	90 0 0
10	Bagnall, John, and Sons [L.]	90 0 0
50	Bilbair Coal Co. [L.]	10 0 0
50	Bilbair Iron Ore Co. [L.]	10 0 0
50	Bilbair and Camp Meadow Coll. Co. [L.]	10 0 0
50	Blaenavon Iron and Steel Co. [L.]	10 0 0
50	Bolckow, Vaughan, and Co. [L.]	50 0 0
50	Bowling Iron Co. [L.]	50 0 0
50	Britannia Ironworks [L.]	50 0 0
50	Brown, Bailey, and Dixon [L.]	25 0 0
100	Brown, John, and Co. [L.]	40 0 0
5	Cakewell Colliery Co. [L.]	70 0 0
100	Cammell and Co. [L.]	5 0 0
20	Cannock and Hestonington Coal [L.]	5 0 0
10	Cardiff & Swansea Steel Coal Co. [L.]	6 0 0
10	Cardigan Steel and Wire Co. [L.]	5 0 0
10	Central Swedish Iron and Steel [L.]	10 0 0
5	Chapel House Colliery	5 0 0
50	Charlton Iron Co. [L.]	50 0 0
10	Chatterley Iron Co. [L.]	45 0 0
1	Clee Hill Colliery Co. [L.]	10 0 0
10	Consett Iron Co. [L.]	1 0 0
1	Consett Spanish Ore [L.]	7 10 0
50	Cooke, William, and Co. [L.]	20 0 0
50	Darlington Iron Co. [L.]	40 0 0
50	Davy Brothers [L.]	12 10 0
50	Diamond Fuel Co. [L.]	22 10 0
50	Ebbw Vale Co. [L.]	5 0 0
100	Ex, Samuel, and Co. [L.]	35 0 0
10	Great Western Mining Ass. [L.] (all returned)	5 0 0
20	Gwynne's Iron and Coal Co. [L.]	17 0 0
15	Hopkins, Glikes, and Co. [L.]	2 0 0
50	Knowles, Andrew, and Co. [L.]	11 0 0
10	Llay Hall Coal, Iron, & Firebrick [L.]	17 0 0
5	Littleddan Woodside Coll. Co. [L.]	10 0 0
50	Llynvi, Ogmore, & Tondra Co. [L.]	5 0 0
10	Lydney and Wigpool Iron Ore [L.]	50 0 0
5	Merbella Iron Ore Co. [L.]	5 0 0
5	Midland Steel and Iron Co. [L.]	10 0 0
5	Mold Argued Coal Co. [L.]	5 0 0
10	Monkland Iron and Coal Co. [L.]	10 0 0
5	Mwyndy Iron Ore [L.]	5 0 0
5	Nant-y-gio and Blaitha (S. & P.)	10 0 0
5	Nerbudda Coal and Iron [L. & Red.]	2 0 0
10	New Sharlston Collieries [L.] Prof.	10 0 0
10	Newport Abercrom Coal Co. [L.]	10 0 0
10	Northampton Coal, Iron & Wagon [L.]	10 0 0
10	Northfield Iron Co. [L.]	8 0 0
5	Norton Green Coal Co. [L.]	1 0 0
5	Palmer's Shipbuilding and Iron [L.]	25 0 0
100	Parkgate Iron Co. [L.]	85 0 0
20	Patent Nut and Bolt Co. [L.]	14 0 0
50	Patent Shaft and Axletree [L.]	15 0 0
50	Pellaud Coal and Iron [L.]	10 0 0
50	Phoenix Bessemer Co. [L.]	15 0 0
50	Rhymney Iron Co. [L.]	50 0 0
10	Richards and Co. [L.]	10 0 0
50	Sandwell Park Colliery Co. [L.]	100 0 0
	Ditto New	100 0 0
50	Shotts Iron Co. [L.]	55 0 0
50	Shrewsbury Iron and Coal [L.]	50 0 0
50	Silkeston & Worth Cl. & Iron [L.]	27 0 0
50	Skerne Ironworks [L.]	20 0 0
50	Somersetshire Iron Co. [L.]	60 0 0
50	South Wales Coal Co. [L.]	21 0 0
50	Staveley Iron and Coal Co. [L.]	60 0 0
	Ditto ditto New	60 0 0
5	Swansea Valley Steam Coll. Co. [L.]	5 0 0
5	Thames Iron Company	100 0 0
5	Tredger Iron and Coal Co. [L.]	20 0 0
5	Ditto B. shares	25 0 0
50	Ulverston Mining Co. [L.]	12 0 0
50	Vancouver Coal [L.]	8 0 0
50	Vickers, Sons, & Co. [L.]	100 0 0
50	Welsh Ironworks Co. [L.]	50 0 0
50	W. Cumberland I. & Steel [L.]	20 0 0
50	West Mostyn Coal [L.] (12 s. pref.)	5 0 0
50	West Swansea Colliery Co. [L.]	10 0 0
50	Whitehaven Iron Co. [L.]	10 0 0
50	Wigan and Whiston Coal Co. [L.]	10 0 0
50	Wigan Coal and Iron Co. [L.]	75 0 0

WAGON COMPANIES.

10	Birmingham Wagon Co. [L.]	10	0 00.
10	Ditto, 2nd issue	4	0 00.
10	Ditto, pref., 6 per cent.	10	0 00.
10	British Wagon Co. [L.]	10	0 00.
10	Göteborg [L.]	10	0 00.
10	Ditto, 5th issue	8	0 00.
10	Met. Rail. Car. and Wagon Co. [L.] ..	8	0 00.
5	Ditto, pref., 6 per cent.	5	0 00.
10	Midland	10	0 00.
10	North Central Wagon Co.	20	0 00.
5	Rail. Car. [L.] (Oldbury)	6	0 00.
20	Ditto, pref., 6 per cent.	8	0 00.
20	Sheffield Wagon Co. [L.]	15	0 00.
10	Yorkshire Wagon Co. [L.]	15	0 00.

TELEGRAPH COMPANIES

81st. Anglo-American	100	00	00
10 Brazilian Submarine	10	00	00
20 Direct United States Cable	20	00	00
10 Eastern	10	00	00
10 East, Exten., Australia and China	10	00	00
10 Great Northern	10	00	00
25 Indo-European	25	00	00
10 Mediterranean Extension	10	00	00
5 Reuters	5	00	00
81st. Submarine	100	00	00
20 West India and Panama	20	00	00
20 Western and Brazilian	20	00	00
1000 Western Union	1000	00	00

MISCELLANEOUS

100	Ang. Virginia Freehold Land Bonds	100	0 00.
Stk.	Atlantic and Great Western Leased Lines, Rental Trust	100	0 00.
25	Australian Agricultural	21	10 00.
25	Austral. Mort. Land and Finance [L.]	8 00.	40.
10	Avalon Engine [L.]	7	00 0.
Stk.	Baltimore and Ohio, 6 per cent.	100	0 00.
10	Brighton Aquarium [L.]	10	00 00.
Stk.	Cent. of New Jersey Con. Mort.	100	0 00.
25	Cent. Pacific of Calif., 1st Mort. 5 p.c.	100	0 00.
25	City of London Real Property [L.]	12	00 00.
25	Copper Mining and Eng. (1 p. c. p. d.)	19	00 00.
5	Diamond Rock Bonds	10	00 00.
15	English and Foreign Credit	8	00 00.
16	Fore Street Warehouse [L.]	14	00 00.
15	Foster, Porter, and Co. [L.]	10	00 00.
5	Gen. Phos. & Chem. Works Co. [L.]	8	00 00.
5	Kilt Hill Tunnel [L.]	1	00 00.
17	Hudson's Bay Company	17	00 00.
10	Huntingdon Copper and Sul. Co.	6	00 00.
Stk.	Illinois Central, \$100 shares	100	0 00.
Stk.	Illinois & St. Louis Bridge, 1st Mort.	100	0 00.
Stk.	Illinois, 2nd Mort.	100	0 00.
Stk.	Illinois Cent. Sinking Fund, 5 p. cent.	100	0 00.
Stk.	Illinois, 6 per cent.	100	0 00.
7½	Imperial Credit [L.]	7	10 00.
	— Ditto, Surplus Certificate	—	—
Stk.	Lehigh Val. Con. Mort., A, 5 p. cent.	100	0 00.
10	Milner's Safe [L.]	10	00 00.
25	National Discount [L.]	10	00 00.
Stk.	N. York & N. Jersey Con. Mort., 5 per cent.	100	0 00.
10	Pawson and Co. [L.]	5	00 00.
50	Peninsular and Oriental	50	00 00.
Stk.	Pennsly. Gen. Mort. 6 p. cent., 1910.	100	0 00.
Stk.	Ditto, Con. Sink. Fund, 6 p. c., 1908	100	0 00.
Stk.	Scottish Aust. Investment Company	100	0 00.
Stk.	Ditto, 6 per cent. Preference	100	0 00.
10	Silver Light (ord. sh.)	30	00 00.
20	Suez Canal share	20	00 00.
12	Telegraph Construc. & Maints. [L.]	12	00 00.
5	Union Pacific Ry. Con. Mort. 5 p. c.	5	00 00.
10	Thariss Sulphur and Copper Co.	10	00 00.
Stk.	Union Pacific Land Grant, 1st Mort.	100	0 00.
Stk.	Union Pacific Railway, 1st Mort.	100	0 00.

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Shares.	Mines.	Paid.	Last Pr.	Cos. Pr.	Last Call.	5000
12000	Anguilla Phosphate, West Indies (4000 issued)	10 0 0	—	—	—	8000
3000	Argentina, <i>s</i> , Argentine Republic	8 0 0	—	—	—	—
3000	Arizona, <i>s</i> , Peruvian (510 shares)	10 0 0	3	2 3	—	9000
30000	Blue Tent, Nevada	10 0 0	—	—	—	8000
49936	Chontales, <i>s</i> , Nicaragua*	5 0 0	3 1/2	3 3/4	—	45000
10000	Comdes of Chili, <i>s</i> , <i>i</i>	2 0 0	3 1/2	3 1/2	—	8000
4000	English Australian, <i>s</i> , Victoria*	5 0 0	3	3 1/2	—	10000
5000	Excelsior Hydraulic Gold Washing Co., California	6 0 0	3	3 1/2	—	8000
4000	Eschschuer, <i>s</i> , California*	1 0 0	—	—	—	10000
4000	Holocene & Alley, <i>s</i> , California	1 0 0	3 1/2	3 1/2	—	8000
4000	Hornachos, <i>s</i> , Chile	1 0 0	3 1/2	3 1/2	—	10000
12000	Huitailai, <i>i</i> , <i>de</i> , Orebo, <i>s</i> , China	10 0 0	13	12 13	—	14000
12000	Hunter Consolidated, <i>s</i> , Utah	8 0 0	6	6 1/2	—	8000
4000	Imperial Brazilian Collierias, Brazil	5 0 0	6 1/2	6 1/2	—	10000
4000	I. A. L., <i>s</i> , California*	1 0 0	—	—	—	12000
4000	Javali, <i>s</i> , Nicaragua*	1 0 0	3 1/2	3 1/2	—	8000
3500	La Manche, <i>i</i> , Newfoundland	2 0 0	3 1/2	3 1/2	—	547
12000	Lanestosa, <i>i</i> , <i>s</i> , Vizcaya, Spain (42 shares)	10 0 0	—	—	—	18000
5000	Malabar, <i>s</i> , Colombia* (67185 issued)	1 15 0	—	—	—	640
00000	Malpaso, <i>s</i> , Colombia* (1400 pref. shares, fully paid)	1 0 0	3 1/2	3 1/2	—	10000
4000	Meunenberg, <i>s</i> , Homburg, Germany*	8 80	3 1/2	3 1/2	—	20000
4000	New Benosca, <i>s</i> , <i>i</i> , Germany*	8 0 0	—	—	—	1000
4000	New Quebrada, <i>s</i> , Venezuela*	8 0 0	—	—	—	1000
5000	New Zealand Napanga, <i>s</i> , Coromandel	5 0 0	2	1 1/2	—	12000
5000	Oregon, <i>s</i> , Oregon, U.S. (preference shares)	5 0 0	1 1/2	1 1/2	—	8000
5000	Panellito, <i>s</i> , Chili* (480000 debentures)	4 0 0	—	—	—	5000
4000	Pastorina United, <i>s</i> , Italy*	4 0 0	2	2 1/2	—	7000
5000	Providencia and New Rosario, <i>s</i> , Mexico*	1 0 0	3 1/2	1 1/2	—	3000
4000	Rica, <i>s</i> , Colombia* (40000 issued)	1 0 0	—	—	—	5000
151,000	Rio Tinto, <i>s</i> , <i>s</i> , Huelva, Spain	1 0 0	3 1/2	3 1/2	—	12000
4000	Rosa Grande, <i>s</i> , Chili* (all shares)	50 0 0	50 67	—	—	10000
4000	Russia Copper, Oresund and Ufa*	0 10 0	3 1/2	3 1/2	—	8000
4000	San Pedro, <i>s</i> , Chili*	10 0 0	2 1/2	1 1/2	—	5000
4000	Silver Plume, <i>s</i> , Colorado*	2 0 0	3 1/2	3 1/2	—	5000
4000	Tecoma, <i>s</i> , Utah*	1 0 0	—	—	—	2000
4000	Thornhill Reef, <i>s</i> , Australia*	10 0 0	3 1/2	3 1/2	—	1000
171	United Mexican, <i>s</i> , Mexico* ¹	1 0 0	—	—	—	12000
4000	Utah, <i>s</i> , <i>s</i> , Utah*	5 15 0	2	1 1/2	—	3000
4000	Yorke Peninsula, <i>s</i> , South Australia	1 0 0	—	—	—	15000
4000	Yorke Peninsula, <i>s</i> , South Australia Preference	1 0 0	3 1/2	3 1/2	—	8000
4000		1 0 0	3 1/2	3 1/2	—	8000

¹ Have made calls since last dividend.

FOREIGN AND MISCELLANEOUS STOCKS, BONDS, LOANS, AND TRUSTS

Closing Prices.		Closing Prices.	
Argentina, 1968, 6 per cent.	71 73	Foreign and Col. Gov. Trust, 5 p. ct. ..	65 70
Bolivia, 6 per cent.	24 25	Do., 5 per cent., 2d issue ..	59 57
Brazilian, 1965, 5 per cent.	95 95	Do., 5 per cent., 3d issue ..	59 59
Chilean, 1966, 7 per cent.	102 104	Do., 1872, 4th issue ..	46 50
City of Providence, 5 p. coupon bonds	99 101	Do., 1875, 5th issue ..	46 51
Egyptian, 5 per cent.	83 85	Peruvian, 1870, 5 per cent.	18 13 1/2
Do., unified debt, scrip ..	34 34 1/2	Do., 1872, 5 per cent.	11 1/2
Do., 7 per cent., V.M.L.	87 87	Russian, 6 1/2 per cent. L. Mort.	95 97
Do., 9 per cent. guar.	74 75	Spanish, Quicksilver Mort., 5 p. ct.	95 97
Do., 7 per cent., K.M.L.	63 64	United States Mort., 6 per cent.	95 98